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Dr. Dudley Smith

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PHYSIOLOGICAL
MATERIA MEDICA,

CONTAINING

ALL THAT IS KNOWN OF THE PHYSIOLOGICAL
ACTION OF OUR REMEDIES;

TOGETHER WITH

THEIR CHARACTERISTIC INDICATIONS
AND PHARMACOLOGY.

BY

WM. H. BURT, M. D.,

Author of "CHARACTERISTIC MATERIA MEDICA," "THERAPEUTICS OF TUBERCULOSIS,"
"A MONOGRAPH ON POLYPORUS OFFICINALIS," "POLYPORUS PINACOLA,"
"USTILAGO MADIS AND CINCHONA OFFICINALIS," Etc.

THIRD EDITION.

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CHICAGO:
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1883.

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TO .

RICHARD HUGHES, M. D.,

OF BRIGHTON, ENGLAND,

In grateful acknowledgment of his high attainments in the
field of Materia Medica, and in token of warm personal esteem,
this volume is most cordially dedicated by

THE AUTHOR.

PREFACE TO SECOND EDITION.

On the first day of June a large edition of this work was placed upon the market; and in ninety days the second edition was called for. This is phenomenal, exceeding all reasonable expectations of the author. Such a reception has never been awarded before to any book in the history of Homœopathic literature; and, under the circumstances, it is peculiarly gratifying, especially when we take into consideration the great competition of so many able and well-established works on *Materia Medica* and *Therapeutics*. It was thought that the progress of so extensive a work, in professional favor, must necessarily be slow; but the demand for the book indicates that its appearance was opportune, and that its plan and execution are approved. The author desires to express to the profession his warmest thanks for this continued appreciation of his labors.

WILLIAM H. BURT, M. D.

CHICAGO, August, 1881.

PREFACE TO THIRD EDITION.

The sale of two large editions of this work in the short space of sixteen months is most gratifying to the author, and conclusive evidence of its adaptation to the needs of students and practitioners. To render the work still more worthy of their approval, *Chloral Hydrate* and *Iodoform* have been added, and typographical and other errors corrected.

WILLIAM H. BURT, M. D.

652 WASHINGTON BOULEVARD,
Sept. 1882.

PREFACE.

This work was suggested to the author from his own need of a book combining the *pharmacology, pathology, and therapeutics* of our drugs, arranged in a convenient form for ready reference. Among the many excellent treatises upon *Materia Medica* and *Therapeutics*, there was not one that would give a complete knowledge of the *uses, effects, and mode of preparation* of our remedies; and this information could only be found scattered through a much greater number of books than are available to the ordinary student or practitioner. For this reason, the major portion of the profession have a very imperfect knowledge of our drugs, and especially so in regard to their *physiological and pathological action*. The design of this work is to fill this hiatus, and to place in the hands of the student of *Materia Medica* a text-book so arranged that he can readily find *what a drug is, where it is obtained, how it is prepared for medicinal use, how it acts upon the human organism, what tissues it especially acts upon, how it affects them, how much of the drug it takes to produce certain results, and what are its characteristic therapeutics*. This the author has endeavored to do with each drug, not only of the old, but of all the important new, remedies; and to do this, the following plan has been adopted: First, to give the Latin name of the drug and then the English name; second, where it is to be found, the part used in medicine, and how to prepare it for use; third, its antidotes; fourth, the number of tissues acted upon. This is followed by a tabulated summary of its whole range of action, from which its line of uses may be grasped in a few moments. Then follows the *physiological action, tissue by tissue*; and finally, under the head of *Therapeutic Individuality, its characteristic therapeutics* are given.

To gather out from our boundless literature the multitude of facts relating to the action and uses of our drugs, and to

sift the true from the false, has been a most formidable task. To aid in this undertaking, the author supplied himself with all available works treating upon this subject, in all schools of medicine; but, so serious has been the want of some original memoir or book treating on certain drugs, that he has often coveted the help to be derived from consulting the more complete libraries of Europe, more especially those of France and Germany. But, imperfect as the result is, the clinician will find the subject matter of each drug, so far as possible, made up of *solid, practical facts, that can be relied upon at the bedside with positive certainty*; for nothing has been selected until it has received from competent authority the indorsement of a *positive physiological or clinical effect of the drug*.

A special study of the *physiological action* of each drug has been made; for drug pathology is quite as necessary to the scientific physician, as disease pathology, and a physician who can not diagnose the pathology of a drug, need not expect to be successful in the treatment of disease. We are fully persuaded, that, to endure the crucial test of science, the *Materia Medica* of the future *must stand upon a physiological basis*.

The first thing to learn about a drug is its *physiological and pathological action upon the healthy human organism*. To know what tissues it acts upon, and just how it affects them, leads directly to its curative action; and clinical experience *ex usu in morbis*, will soon give us its grand characteristics; for drugs, like men, have characteristics by which they can be known and distinguished one from another. One drug acts upon the nerves of motion, another upon the nerves of sensation; one relaxes, another contracts; one acts upon the mucous membranes, another upon the bones,—each one producing certain pathological conditions in localized parts; and, from these localized affections, by reflex action, the whole system is implicated. The knowledge of this localized action gives us the key to its therapeutics; for a reflex symptom is far less valuable than a primary or idiopathic one.

An acquaintance with the physiological action of drugs is of great importance, and, in fact, is absolutely necessary in treating cases of poisoning, that so often fall into the hands of the physician. And it is also especially called for when a physician is summoned into a court of law, where he must be able to state what are the toxic symptoms and the post-mortem changes produced by a given poison, and what diseases they assimilate.

In collating the therapeutics of each drug, it has been the aim to select those symptoms only, whether pathogenetic or clinical, that have been tested repeatedly and found reliable by our best practitioners, so often that they have been declared "CHARACTERISTICS" or "KEY-NOTES" of the drug. These therapeutic hints have been taken from the experience of the whole profession, and from all schools of medicine, wherever a fact could be found; and consequently they do not represent the *ipse dixit* of any one man, but the practical clinical experience of the whole profession. Each man, so to speak, being the bank from which the symptom was issued, his name is attached to what rightfully belongs to him, and the clinical test at the bed-side will reveal whether that bank was good or not.

The author desires to make particular mention of the great value that the labors of Drs. R. Bartholow, H. C. Wood, A. Stille, Sydney Ringer, Richard Hughes, E. M. Hale, and C. D. F. Phillips, have been to him in collecting the physiological and pathological action of our remedies. In collecting the *therapeutics*, the author has drawn largely from the writings of Drs. Samuel Hahnemann, Constantine Hering, Carroll Dunham, C. J. Hempel, A. Lippe, T. F. Allen, H. N. Guernsey, H. Goullon, J. B. Bell, E. A. Farrington, William Bayes, R. Ludlam, J. Meyhoffer, B. Hirschel, P. Jousset, W. H. Holcombe, Marcy and Hunt, C. G. Raue, B. Baehr, S. Lilienthal, T. Nichol, H. C. Jessen, O. P. Baehr, C. C. Smith, A. McNeal, G. H. G. Jahr, J. D. Johnson, F. Hartmann, and C. de Boenninghausen. Although the first four mentioned are gone to their eternal homes, and are at rest from their labors, their works still live; and unborn millions will yet rise up and bless them. Without the labors of these men, this book could not have been written.

For convenience, the following abbreviations have been used in crediting symptoms under the Therapeutic Individuality of each drug: Hah., for Hahnemann; Hg., for Hering; G., for H. N. Guernsey; F., for J. H. P. Frost; D., for C. Dunham; A. and N., for Allen and Norton. Dr. A. McNeal, of New Albany, Ind., very kindly furnished me with many symptoms that he had collected from foreign journals; and I have drawn many symptoms from my old "Characteristic Materia Medica."

WILLIAM H. BURT, M. D.

CHICAGO, 652 WEST WASHINGTON ST.,
May, 1881.

INDEX.

Aconitum.....	83	Carbo animalis.....	251
Acetate of Lead ointment.....	30	Carbo vegetabilis.....	253
Adhesive plaster.....	31	Caulophyllum thalictroides.....	255
Æsculus hippocastanum.....	53	Causticum.....	256
Æsculus cerate.....	30	Centesimal scale.....	28
Alcohol.....	21	Chamomilla.....	259
Aloes.....	54	Chelidonium.....	261
Alumina.....	56	Chemical preparations.....	14
Amбра grisea.....	59	Chimaphila.....	264
Ammonium carbonicum.....	61	Chloroformum.....	265
Amyl nitritum.....	64	Chloral.....	266
Animal kingdom.....	26	Chopping board.....	19
Antimonium crudum.....	77	Cimicifuga.....	276
Antimonium tartaricum.....	80	Cina.....	279
Apis mellifica.....	89	Cinchona.....	284
Apocynum cannabinum.....	97	Cinnamomum.....	311
Argentum nitricum.....	100	Classes I., II., III., IV.....	25, 26
Arnica montana.....	109	Classification.....	
Arnica cerate.....	30	Cleansing plants.....	24
Arsenicum album.....	116	Cleansing utensils.....	19
Arum triphyllum.....	137	Cocculus Indicus.....	313
Asafetida.....	139	Coffea cruda.....	318
Asparagus officinalis.....	143	Colchicum.....	326
Aurum.....	144	Collinsonia.....	333
Acidum benzoicum.....	149	Collodium.....	31
Acidum carbolicum.....	153	Colocynthis.....	336
Acidum fluoricum.....	156	Conium.....	340
Acidum hydrocyanicum.....	160	Copaiba.....	347
Acidum muriaticum.....	164	Corallium rubrum.....	350
Acidum nitricum.....	168	Corks.....	18
Acidum phosphoricum.....	173	Court plaster.....	31
Acidum salicylicum.....	179	Crocus sativus.....	351
Acidum sulphuricum.....	189	Crotalus horridus.....	353
Baptisia.....	191	Croton tiglium.....	360
Barks.....	24	Cuprum.....	364
Baryta carbonica.....	194	Decimal scale.....	28
Belladonna.....	195	Digitalis purpurea.....	370
Belladonna ointment.....	30	Dioscorea villosa.....	383
Berries, fruits, and seeds.....	24	Distilled water.....	20
Body wood.....	24	Duboisia.....	209
Borax.....	217	Dulcamara.....	384
Bottles.....	18	Ether.....	22, 388
Bryonia alba.....	220	Eucalyptus.....	397
Bulbs.....	24	Euonymus.....	402
Cactus grandiflorus.....	228	Eupatorium perfoliatum.....	403
Calomel ointment.....	30	Eupatorium purpureum.....	406
Calcareæ.....	229	Euphrasia.....	408
Calendula officinalis.....	235	External application.....	29
Camphora.....	236	Ferrum.....	409
Cannabis sativa.....	241	Ferrum reductum.....	414
Cantharides.....	243	Ferrum pyrophosphas.....	414
Capsicum.....	250	Ferri chloridum.....	414

Ferri et strychniæ citras	414	Phosphorus	689
Ferrum dialysatum	414	Phytolacca decandra	716
Ferri subsulphatis	414	Plantago major	725
Filix mas	417	Plants	31
Flowers	24	Platina	726
Fresh plants	23	Plumbum	731
Fruits	24	Podophyllum	748
Gelsemium	418	Polyporus officinalis	756
Globules	23	Potentizing	29
Glonoine	430	Preparation of Tinctures	25
Glyceroles	30	Presses	19
Glycerole of Carbolic acid	30	Procuring medicinal substances	23
Glycerole of Borax	30	Proof spirit	28
Glycerole of Hydrastis	30	Psorinum	758
Glycerole of Starch	31	Pulsatilla nigricans	762
Graphites	434	Red Oxide of Mercury	30
Gummi guttæ	438	Rheum	780
Hamamelis	440	Rhus toxicodendron	782
Helleborus niger	444	Robinia	801
Helonias dioica	449	Roots	24
Hepar sulphuris calcarea	453	Rumex crispus	802
Homatropin	209	Sabina	804
Hydrastis	463	Saccharated extracts	33
Hyoscyamus	467	Sambucus nigra	809
Hypericum	474	Sanguinaria	810
Ignatia amara	475	Sarsaparilla	816
Iodine	481	Scales	19
Iodoform	487	Scutellaria	817
Ipecacuanha	497	Secale cornutum	819
Iris versicolor	506	Seeds	24
Jaborandi	511	Senecio aureus	837
Kali bichromicum	519	Senega	839
Kali bromidum	528	Sepia	841
Kali carbonicum	540	Sieves	19
Kali chloricum	444	Silicea	851
Kali hydriodicum	446	Simple cerate	30
Kreosotum	554	Spatulas	19
Laboratory	17	Spigelia	862
Lachesis	558	Spongia	865
Leaves	24	Spoons	19
Leptandra	567	Stannum	868
Lilium tigrinum	570	Sticta pulmonaria	872
Liniments	31	Stillingia sylvatica	873
Lycopodium	573	Stramonium	875
Magnesia	578	Sugar of milk	22
Magnesia carbonica	580	Sulphur	883
Magnesia muriatica	581	Sulphur ointment	30
Manganum	583	Tabacum	902
Measuring glasses	19	Tanacetum vulgare	912
Mercurius	586	Tarantula Cubensis	914
Mercurial ointment	30	Tarantula Hispana	913
Mezereum	619	Terebinthina	918
Millefolium	626	Temperature	20
Mortars	18	Teucrium marum verum	924
Moschus	627	Thlaspi	924
Mother tinctures	25	Thuja occidentalis	925
Natrum muriaticum	630	Trillium pendulum	935
Neutral substances	20	Trituration	27
Nux moschata	639	Uranium	937
Nux vomica	644	Urtica urens	940
Ointments	30	Ustilago madis	942
Opium	665	Valeriana	949
Ostrya Virginica	683	Veratrum album	954
Petroleum	684	Veratrum viride	960
Pharmacology	17	Zincum	974

CLASSIFICATION.

All medicines have for their *starting point* or *center of action* the *nervous centers*, either *animal* or *organic*. Those that have their center of action in the *animal* (cerebro-spinal) nervous system, are the *true* remedies for *acute* and *sub-acute* diseases; and those that have their *center of action* in the *organic* (ganglionic) nervous system, are the true remedies for *sub-acute* and *chronic* diseases. The cerebro-spinants can often be alternated advantageously with the organic remedies.

ANIMAL GROUP.

Cerebro-Spinants.

For Acute and Sub-Acute Diseases.

Aconite.	Chelidonium.	Glonoine.	Sabina.
Æsculus hip.	Chloroformum.	Hamamelis.	Sambucus nigra.
Ambra grisea.	Cimicifuga.	Helleborus niger.	Sanguinaria Can.
Ammonium carb.	Cina.	Homatropin.	Scutellaria.
Amyl nitritum.	Cinchona.	Hyoscyamus nig.	Secale cornutum.
Antimonium cr.	Cinnamomum.	Hypericum per.	Senecio aureus.
Antimonium tart.	Cocculus Indicus.	Ignatia amara.	Senega.
Apocynum can.	Coffea cruda.	Ipecacuanha.	Spigelia.
Arnica montana.	Colchicum.	Iris versicolor.	Stannum.
Arum triphyllum.	Collinsonia Can.	Jaborandi.	Sticta pulmo.
Asafœtida.	Colocynthis.	Kali bromidum.	Stramonium.
Asparagus offic.	Conium mac.	Lachesis.	Tabacum.
Acidum benz.	Copaiba.	Lilium tigrinum.	Tanacetum vulg.
Acidum carbol.	Corallium rub.	Mezereum.	Tarantula Cuben.
Acidum hydroc.	Crocus sativus.	Millefolium.	Tarantula Hispa.
Acidum salicyl.	Crotalus hor.	Moschus.	Terebinthina.
Baptisia.	Cuprum.	Nux moschata.	Teucrium m. v.
Belladonna.	Digitalis pur.	Nux vomica.	Thlaspi bur. pas.
Bryonia alba.	Dioscorea vil.	Opium.	Trillium pend.
Cactus grand.	Duboisia.	Ostrya Virginica.	Uranium.
Camphora.	Dulcamara.	Phytolacca dec.	Urtica urens.
Cannabis sativa.	Ether.	Plantago major.	Ustilago madis.
Cantharides.	Eucalyptus glob.	Platina.	Valeriana.
Capsicum.	Eupatorium per.	Plumbum met.	Veratrum album.
Caulophyllum.	Eupatorium pur.	Pulsatilla nigr.	Veratrum viride.
Causticum.	Euphrasia.	Rhus tox.	Zincum val.
Chamomilla.	Gelsemium sem.	Robinia pseudac.	Zincum metal.

ORGANIC GROUP.**Ganglionics.****For Sub-Acute and Chronic Diseases.**

Aloes.	Carbo vegetabilis.	Kali carbonicum.	Phosphorus.
Apis mellifica.	Chimaphila.	Kali chloricum.	Podophyl. pelt.
Argentum nit.	Croton tiglium.	Kali hydriodicum.	Polyporus offic.
Arsenicum alb.	Euonymus.	Kreosotum.	Psorinum.
Aurum.	Ferrum.	Leptandra Virg.	Rheum.
Acidum fluor.	Filix mas.	Lycopodium.	Rumex crispus.
Acidum muriat.	Graphites.	Magnesia.	Sarsaparilla.
Acidum nit.	Gummi guttæ.	Magnesia carb.	Secale cor.
Acidum phos.	Helonias dioica.	Magnesia mur.	Sepia.
Acidum sulph.	Hepar sulphur.	Manganum.	Silicea.
Baryta carbonica.	Hydrastis Can.	Mercurius.	Spongia.
Borax.	Iodine.	Mercurius jod.	Stillingia sylvat.
Calcarea carb.	Kali bichrom.	Natrum mur.	Sulphur.
Carbo animalis.	Kali bromidum.	Petroleum.	Thuja occident.

Classification According to Tissues.**Cerebral Group.**

Aconitum.	Hyoscyamus.
Amyl nitritum.	Kali brom.
Arsenicum.	Lachesis.
Acidum carbol.	Opium.
Belladonna.	Plumbum.
Cannabis sativa.	Pulsatilla.
Chloroformum.	Rhus tox.
Cinchona.	Sanguinaria.
Coffea.	Scutellaria.
Crotalus.	Silicea.
Cuprum.	Stannum.
Digitalis.	Stramonium.
Ether.	Tabacum.
Gelsemium.	Tarantula.
Glonoine.	Veratrum viride.
Helleborus.	

Spinal Cord (Motor Group).

Aconitum.	Cantharides.
Alumina.	Causticum.
Amyl nitritum.	Chloroformum.
Antimonium tart.	Cimicifuga.
Argentum.	Cina.
Arnica.	Cinchona.
Arsenicum.	Cocculus.
Asafoetida.	Colchicum.
Acidum carbol.	Colocynthis.
Acidum hydroic.	Conium.
Acidum phos.	Copaiba.
Acidum salicyl.	Crocus.
Baptisia.	Cuprum.
Belladonna.	Digitalis.
Camphor.	Dioscorea.

Dulcamara.	Phytolacca.
Ether.	Plumbum.
Eucalyptus.	Polyporus.
Eupatorium per.	Psorinum.
Eupatorium pur.	Rhus tox.
Gelsemium.	Secale.
Helleborus.	Spigelia.
Hyoscyamus.	Stannum.
Ignatia.	Stramonium.
Ipecacuanha.	Tabacum.
Kali brom.	Tanacetum.
Kreosotum.	Tarantula.
Lachesis.	Terebinthina.
Manganum.	Uranium.
Mercury.	Ustilago.
Mezereum.	Valeriana.
Moschus.	Veratrum album.
Nux moschata.	Veratrum viride.
Phosphorus.	

Spinal Cord (Sensory Group).

Aconitum.	Caulophyllum.
Ambra grisea.	Chamomilla.
Antimonium tart.	Chloroform.
Argentum.	Cimicifuga.
Arsenicum.	Cinchona.
Asafoetida.	Coffea.
Acidum hydroc.	Colchicum.
Acidum phos.	Colocynthis.
Acidum salicyl.	Crocus.
Baptisia.	Dioscorea.
Belladonna.	Ether.
Camphor.	Eupatorium per.
Capsicum.	Eupatorium pur.

Ignatia.
Kali brom.
Mercury.
Mezereum.
Moschus.
Natrium mur.
Nux moschata.
Opium.
Phosphorus.
Platina.
Plumbum.

Skin.

Aconitum.
Aloes.
Antimonium cr.
Antimonium tart.
Apis mellifica.
Apocynum can.
Argentum.
Arnica.
Arsenicum.
Aurum.
Acidum carbol.
Acidum fluor.
Acidum mur.
Acidum nit.
Acidum phos.
Acidum sulph.
Belladonna.
Borax.
Calcarea.
Cantharides.
Carbo animal.
Cinchona.
Colchicum.
Copaiba.
Crotalus.
Croton tiglium.
Dulcamara.
Ether.
Eucalyptus.
Eupatorium per.
Graphites.
Hepar sulphur.
Iodine.
Ipecacuanha.

Mucous Membranes.

Aconitum.
Alumina.
Ammonium carb.
Antimonium cr.
Antimonium tart.
Apis mellifica.
Apocynum can.
Argentum.
Arsenicum.
Arum triphyllum.
Asafoetida.
Acidum carbol.
Acidum fluor.
Acidum mur.
Acidum nit.
Acidum salicyl.

Pulsatilla.
Rhus tox.
Sanguinaria.
Scutellaria.
Secale.
Senecio.
Spigelia.
Tarantula.
Terebinthina.
Valeriana.
Veratrum viride.

Iris.
Kali bichrom.
Kali brom.
Kali hyd.
Kreosotum.
Lachesis.
Lycopodium.
Manganum.
Mercury.
Mezereum.
Natrium mur.
Nux vomica.
Opium.
Petroleum.
Phytolacca.
Plantago.
Pulsatilla.
Rhus tox.
Rumex.
Sambucus.
Sarsaparilla.
Secale.
Sepia.
Silicea.
Stillingia.
Stramonium.
Sulphur.
Tabacum.
Terebinthina.
Thuja.
Urtica urens.
Ustilago.
Veratrum viride.

Hepar sulphur.
Hydrastis.
Iodine.
Ipecacuanha.
Kali bichrom.
Kali brom.
Kali carb.
Kali hyd.
Kreosotum.
Lycopodium.
Magnesia carb.
Magnesia mur.
Manganum.
Mercury.
Mezereum.
Natrium mur.
Nux moschata.
Nux vomica.
Opium.

Serous Membranes.

Aconitum.
Apis mellifica.
Apocynum cann.
Arnica.
Arsenicum.
Acidum salicyl.
Bryonia.
Cantharides.
Colchicum.
Colocynth.
Dulcamara.
Helleborus.
Hypericum.
Iodine.

Fibrous Tissues.

Aconitum.
Argentum.
Acidum benz.
Bryonia.
Colchicum.
Hamamelis.
Kali bichrom.
Kali hyd.
Manganum.
Mercury.

Osseous Group.

Aurum.
Acidum fluor.
Acidum phos.
Calcarea.
Ferrum.
Hepar sulphur.

Lymphatics.

Arsenicum.
Arum triphyllum.
Aurum.
Acidum fluor.
Acidum nit.
Acidum sulph.
Baptisia.
Baryta carb.

Phytolacca.
Pulsatilla.
Rhus tox.
Rumex.
Sabina.
Sambucus.
Sanguinaria.
Senega.
Silicea.
Stillingia.
Stramonium.
Sulphur.
Tabacum.
Teucrium.
Thuja.
Trillium.
Urtica urens.
Veratrum album.
Veratrum viride.

Jaborandi.
Kali carb.
Kali chlor.
Kali hyd.
Mercury.
Mezereum.
Phytolacca.
Plumbum.
Pulsatilla.
Rhus tox.
Senega.
Sulphur.
Uranium.

Phytolacca.
Plumbum.
Rhus tox.
Sabina.
Senega.
Silicea.
Spigelia.
Stillingia.
Sulphur.

Manganum.
Mercury.
Phosphorus.
Plantago.
Silicea.

Belladonna.
Calcarea.
Carbo animal.
Carbo veg.
Chimaphila.
Graphites.
Helonias.
Hepar sulphuris.

Hydrastis.
Iodinē.
Iris.
Kali hyd.
Kreosotum.
Lachesis.
Lycopodium.
Mercury.
Mezereum.
Natrūm mur.
Petroleum.

Phytolacca.
Psorinum.
Rhus tox.
Rumex.
Sarsaparilla.
Silicea.
Spongia.
Stillingia.
Sulphur.
Ustilago.

Belladonna.
Camphor.
Cantharides.
Chimaphila.
Cina.
Cinchona.
Coffea.
Colchicum.
Crotalus.
Cuprum.
Digitalis.
Dulcamara.
Eucalyptus.
Eupatorium pur.
Ferrum.
Gelsemium.
Gummi guttæ.
Helleborus.
Helonias.
Hyoscyamus.
Ignatia.
Iodinē.
Jaborandi.

Kali bichrom.
Kali brom.
Kali chlor.
Kali hyd.
Kreosotum.
Magnesia carb.
Magnesia mur.
Mercury.
Mezereum.
Opium.
Phosphorus.
Phytolacca.
Plumbum.
Pulsatilla.
Sabina.
Sarsaparilla.
Senecio.
Sepia.
Tanacetum.
Terebinthina.
Thuja.
Uranium.
Valeriana.

Salivary Glands.

Apis mellifica.
Argentum.
Arum triphyllum.
Acidum mur.
Acidum nit.
Acidum sulph.
Belladonna.
Cantharides.
Digitalis.
Helleborus.
Helonias.
Iodinē.

Iris.
Jaborandi.
Kali brom.
Kali chlor.
Kali hyd.
Lachesis.
Mercury.
Natrūm mur.
Podophyllum.
Rhus tox.
Sanguinaria.

Pancreas.

Arsenicum.
Ether.
Helleborus.
Helonias.

Iodinē.
Iris.
Mercury.

Spleen.

Arsenicum.
Cinchona.
Eucalyptus.
Ferrum.

Natrūm mur.
Ostrya.
Phosphorus.

Liver.

Aloes.
Arsenicum.
Aurum.
Acidum nit.
Chamomilla.
Chelidonium.
Cinchona.
Cocculus.
Colchicum.
Crotalus.
Croton tig.
Cuprum.
Digitalis.
Diöscorea.
Ether.
Eupatorium per.
Helleborus.
Helonias.
Hepar sulphuris.
Iodinē.

Iris.
Jaborandi.
Kali bichrom.
Kali brom.
Lachesis.
Leptandra.
Lycopodium.
Manganum.
Mercury.
Natrūm mur.
Ostrya.
Phosphorus.
Podophyllum.
Polyporus.
Rheum.
Sanguinaria.
Sepia.
Sulphur.
Veratrum viride.

Kidneys.

Amyl nitritum.
Apis mellifica.
Arsenicum.

Asparagus.
Acidum benz.
Acidum salicyl.

Conium.
Nux vomica.
Plantago.

Secale.
Thuja

Ovaries.

Apis mellifica.
Argentum.
Asafoetida.
Aurum.
Belladonna.
Cantharides.
Cimicifuga.
Cinchona.
Cocculus.
Coffea.
Conium.
Ether.
Gelsemium.
Graphites.
Hamamelis.
Ignatia.
Iodinē.
Kali brom.
Kali carb.
Kreosotum.
Lachesis.

Lilium.
Magnesia carb.
Magnesia mur.
Mercury.
Moschus.
Natrūm mur.
Nux moschata.
Nux vomica.
Opium.
Phosphorus.
Platina.
Pulsatilla.
Secale.
Sepia.
Spongia.
Stramonium.
Tanacetum.
Thuja.
Ustilago.
Valeriana.

Uterus.

Belladonna.
Borax.
Cantharides.
Caulophyllum.
Cimicifuga.
Cocculus.
Coffea.
Crocus.
Digitalis.
Ether.
Gelsemium.

Graphites.
Hepar sulphuris.
Iodinē.
Jaborandi.
Kali brom.
Kreosotum.
Lilium.
Mezereum.
Opium.
Pulsatilla.
Sabina.

Secale.	Thuja.	Crotalus.	Kreosotum.
Sepia.	Trillium.	Croton tiglium.	Lachesis.
Tanacetum.	Ustilago.	Cuprum.	Opium.
Tarantula.	Veratrum viride.	Digitalis.	Pulsatilla.
		Ether.	Robinia pseudac.
		Eupatorium per.	Sanguinaria.
		Gelsemium.	Senega.
		Glonoine.	Stramonium.
		Gummi guttæ.	Tabacum.
		Ipecacuanha.	Veratrum album.
		Iris.	Veratrum viride.

Mammæ.

Asafœtida.	Iodine.
Belladonna.	Jaborandi.
Chelidonium.	Opium.
Conium.	Urtica urens.
Helonias.	Ustilago.

Testicles.

Apis mellifica.	Iodine.
Argentum.	Kali brom.
Asafœtida.	Kali hyd.
Aurum.	Mercury.
Belladonna.	Moschus.
Camphor.	Nux vomica.
Cimicifuga.	Opium.
Cinchona.	Phosphorus.
Coffea.	Pulsatilla.
Conium.	Spongia.
Digitalis.	Stramonium.
Ether.	Tabacum.
Gelsemium.	Tanacetum.
Graphites.	Thuja.
Hamamelis.	Ustilago.
Helonias.	

Stomach.

Aconitum.	Jaborandi.
Antimonium cr.	Kreosotum.
Antimonium tart.	Lachesis.
Arsenicum.	Lycopodium.
Aurum.	Nux vomica.
Acidum carbol.	Opium.
Acidum mur.	Ostrya.
Acidum nit.	Petroleum.
Acidum phos.	Phosphorus.
Belladonna.	Phytolacca.
Carbo animal.	Plumbum.
Carbo veg.	Podophyllum.
Causticum.	Pulsatilla.
Chelidonium.	Rhus tox.
Cinchona.	Robinia.
Coffea.	Secale.
Colchicum.	Senega.
Colocynthis.	Sepia.
Cuprum.	Tabacum.
Digitalis.	Tanacetum.
Helleborus.	Uranium.
Helonias.	Veratrum album.
Ignatia.	Veratrum viride.
Ipecacuanha.	

Pneumogastrics.

Aconitum.	Cactus.
Antimonium tart.	Chloroformum.
Arsenicum.	Cinchona.
Acidum hydroc.	Cocculus.
Acidum salicyl.	Coffea.
Belladonna.	Corallium.

Intestines.

Æsculus hip.	Iodine.
Aloes.	Ipecacuanha.
Antimonium tart.	Iris.
Arnica.	Kreosotum.
Arsenicum.	Leptandra.
Aurum.	Lycopodium.
Acidum mur.	Natrum mur.
Acidum nit.	Nux vomica.
Acidum phos.	Opium.
Belladonna.	Ostrya.
Camphor.	Petroleum.
Cantharides.	Phosphorus.
Chamomilla.	Phytolacca.
Chelidonium.	Plantago.
Cina.	Platina.
Cinchona.	Plumbum.
Coffea.	Podophyllum.
Colchicum.	Polyporus.
Collinsonia.	Pulsatilla.
Colocynthis.	Rheum.
Copaiba.	Rhus tox.
Croton tiglium.	Robinia.
Cuprum.	Rumex crispus.
Digitalis.	Sabina.
Dioscorea.	Secale.
Eucalyptus.	Senega.
Eupatorium per.	Sepia.
Ferrum.	Silicea.
Filix mas.	Spigelia.
Glonoine.	Stannum.
Graphites.	Stramonium.
Gummi guttæ.	Sulphur.
Hamamelis.	Tabacum.
Helleborus.	Tanacetum.
Helonias.	Terebinthina.
Hepar sulphuris.	Uranium.
Hydrastis.	Urtica urens.
Hyoscyamus.	Valeriana.
Ignatia.	Veratrum album.

Lungs.

Aconitum.	Kali hyd.
Arsenicum.	Lycopodium.
Causticum.	Mercury.
Chelidonium.	Mezereum.
Cinchona.	Nux vomica.
Eupatorium per.	Petroleum.
Hamamelis.	Phosphorus.
Hepar sulphuris.	Pulsatilla.
Ipecacuanha.	Rhus tox.

Sanguinaria.
Senecio.
Senega.
Spongia.
Stannum.
Sticta.

Stillingia.
Tabacum.
Terebinthina.
Veratrum album.
Veratrum viride.

Heart.

Aconitum.
Ammonium carb.
Amyl nitritum.
Antimonium tart.
Arsenicum.
Acidum hydroc.
Acidum salicyl.
Bryonia.
Belladonna.
Cactus.
Chloroformum.
Cimicifuga.
Coffea.
Collinsonia.
Conium.
Crotalus.
Cuprum.
Digitalis.
Ether.
Eucalyptus.

Gelsemium.
Helleborus.
Hyoscyamus.
Jaborandi.
Kali brom.
Lachesis.
Lilium.
Nux vomica.
Opium.
Phosphorus.
Rhus tox.
Sanguinaria.
Secale.
Spigelia.
Spongia.
Tabacum.
Tarantula.
Terebinthina.
Veratrum album.
Veratrum viride.

Arteries.

Aconitum.
Ammonium carb.
Arsenicum.
Belladonna.
Chloroformum.
Crotalus.

Iodine.
Phosphorus.
Trillium.
Ustilago.
Veratrum viride.

Veins.

Arnica.
Acidum fluor.
Collinsonia.
Crocus.
Hamamelis.
Hepar sulphur.
Hypericum.

Millefolium.
Pulsatilla.
Sepia.
Sulphur.
Thlaspi.
Ustilago.

Circulation.

Aconitum.
Amyl nitritum.
Antimonium tart.
Arnica.
Arsenicum.
Aurum.
Acidum hydroc.
Acidum salicyl.
Belladonna.
Bryonia.
Cactus.
Camphor.
Chloroformum.
Cimicifuga.
Cinchona.
Cinnamomum.

Digitalis.
Eucalyptus.
Helleborus.
Hyoscyamus.
Ipecacuanha.
Jaborandi.
Kali brom.
Sabina.
Secale.
Sulphur.
Tabacum.
Terebinthina.
Ustilago.
Valeriana.
Veratrum album.
Veratrum viride.

Blood.

Ammonium carb.
Antimonium tart.
Argentum.
Arsenicum.
Acidum carbol.
Acidum hydroc.
Acidum mur.
Acidum nit.
Acidum phos.
Baptisia.
Calcarea.
Carbo veg.
Cinchona.
Crocus.
Crotalus.
Ferrum.
Helonias.
Hepar sulphuris.
Iodine.

Kali carb.
Kali chloricum.
Kali hyd.
Kreosotum.
Lachesis.
Manganum.
Mercurius.
Natrum mur.
Nux vomica.
Phosphorus.
Phytolacca.
Plumbum.
Rhus tox.
Spongia.
Sulphur.
Tarantula.
Terebinthina.
Thuja.

Temperature.

Aconitum.
Amyl nitritum.
Antimonium tart.
Arnica.
Arsenicum.
Aurum.
Acidum salicyl.
Belladonna.
Bryonia.
Chloroformum.
China.
Copium.
Digitalis.

Eucalyptus.
Ferrum.
Gelsemium.
Hyoscyamus.
Ipecacuanha.
Jaborandi.
Kali brom.
Sanguinaria.
Secale.
Stramonium.
Veratrum album.
Veratrum viride.

Vaso-Motor Group.

Aconitum.
Arsenicum.
Acidum hydroc.
Acidum salicyl.
Belladonna.
Calendula.
Chloroformum.
Cinchona.
Coffea.
Crotalus.
Cuprum.
Digitalis.

Ether.
Moschus.
Nux vomica.
Opium.
Sanguinaria.
Stramonium.
Tarantula.
Trillium.
Urtica urens.
Ustilago madis.
Veratrum viride.

Eyes.

Acidum salicyl.
Belladonna.
Chloroformum.
Cina.
Cinchona.
Conium.
Digitalis.
Euphrasia.
Gelsemium.
Hepar sulphuris.

Hyoscyamus.
Ignatia.
Jaborandi.
Mercurius.
Natrum mur.
Nux vomica.
Opium.
Plumbum.
Pulsatilla.
Rhus tox.

Secale.	Tabacum.	Muscular System.	
Senega.	Valeriana.	Antimonium tart.	Cinchona.
Spigelia.	Veratrum viride.	Arnica.	Coffea.
Stramonium.		Arsenicum.	Conium.
	Ears.	Acidum hydroc.	Eupatorium pur.
Acidum salicyl.	Pulsatilla.	Belladonna.	Kali brom.
Cinchona.	Silicea.	Bryonia.	Plumbum.
Hyoscyamus.	Sulphur.	Cactus.	Valeriana.
Nux vomica.		Chloroformum.	Veratrum viride.

Disinfectants.**Oxidizing Disinfectants.**

Chlorine and its preparations.
 Iodine " " "
 Bromine " " "
 Permanganate of Potassium.
 Ozone.

Desulphurating Disinfectants.

Metallic salts. Zinc salts.
 Lime.

Antizymotic Disinfectants.

Benzoic acid.
 Borax.
 Carbolic acid.
 Caustic lime.
 Chloride of Zinc.
 Cinchona.
 Eucalyptus.

Kreosote.
 Salicine.
 Salicylic acid.
 Sulphate of Iron.
 Sulphur.
 Sulphurous acid.
 Thymol.

Absorbing Disinfectants.

Charcoal.
 Coffee.

Chloride of Lime.
 Aluminum.

PHARMACOLOGY.

As there is generally such an imperfect knowledge of pharmacy among the physicians of the Homœopathic school, from the fact that it is not generally taught in our colleges, and that none of our works on *Materia Medica* mention the subject, I have concluded to put in as brief a space as possible, a clear and concise statement of the principles of pharmacology peculiar to our school, so that the physician who chooses to prepare his own remedies will have in his hands a trustworthy guide to this end. I believe that no student in medicine should be allowed to graduate until he so understands the Homœopathic Pharmacopœa that he can prepare his own remedies if necessary; and then he will be able to judge for himself whether a drug is prepared as it should be, and will not accept any remedy offered, because it is put up in an artistic bottle. The Homœopathic physician uses so little medicine, that it behooves him to have that which he does use, *absolutely pure and perfect* in every sense of the word; and that he cannot tell without some knowledge of pharmacy.

The following is based upon the teaching of Hahnemann, Buchner, Gruner, and especially that of the *Pharmacopœa Homœopathica Polyglotta*, by Dr. Willmar Schwabe, of Leipzig.

Chemical Preparations. The manufacture of these has been entirely omitted, for the simple reason that they can be produced much cheaper, and far better, from large Chemical manufactories that make a specialty of their manufacture.

LABORATORY.

The room where Homœopathic remedies are prepared, including the cutting, pounding and triturating, should be protected from the rays of the sun, but should be light, airy, and dry; all emanations that might vitiate the air of the room, as dust, smoke, dampness, and fetid smells, must be rigidly excluded. The strong-smelling substances used must always be prepared and kept separately.

UTENSILS.

Bottles. For neutral substances, bottles made of white flint glass are the best. For substances easily decomposed by sunlight, amber-colored glass should be used, on account of the well-known effect of yellow glass to prevent the action of the chemical rays; or a still better way is to cover the bottles with a solution of asphaltum or black varnish. Such remedies as the acids, Iodine, Kreosote, Chloroform, etc., must be kept in glass-stoppered bottles, and, to prevent the introduction of particles of glass into the medicaments from friction of the glass stoppers, vials of hard potash-glass should be used. Avoid blue-colored bottles, as blue has certain dynamic effects injurious to the remedies.

Corks. These should be selected with great care, made of the best quality of bark, and as free from pores as possible. As soon as they shrink, or become soft, new ones should take their place. For distilled water, glass stoppers must be used, as corks soon mold, and render the water impure.

Mortars. These are made from iron, porcelain, and wedgewood. For pulverizing very hard substances, a highly polished iron mortar, with pestle of the same material, should be used, and kept perfectly free from rust, as rust decomposes a great many vegetable juices at once. Triturating mortars should be made of wedgewood and large (the larger the better for the comminution of the drug), with a broad, flat bottom (if wider than the top so much the better). The pestle should also be thick and flat. To reduce the labor of triturating, a pole one inch and three-quarters in diameter, and four feet six inches long, is made of hard wood (maple or cherry), as pine is too light. In the lower end of this is bored a hole large enough to admit the pestle handle, four to six inches of its length. Around this hole is set securely a smooth iron ferrule. If the pole is too heavy, it will increase the labor of trituration; if too light, the pestle will jump in its circuits around the bowl. The top of the pole should pass into a two-inch hole, made in the wall, or any contrivance that will hold the pole and allow a little motion. Now, if the mortar is made secure at a proper height for the operator, the labor of triturating will be reduced fully one-half, and a four-fold better trituration be produced than can possibly be made in the same time by hand.

Pharmacists should always keep a mortar for each substance. This should be imperative. As a rule, physicians keep but one, when they ought to at least always have three; one made of porcelain, for triturating strong-smelling substances; one for the mer-

curials, and the third for the balance of the remedies. The cleaning of the mortar is simple enough when one is kept for each trituration; but, when one or two are used for all remedies, hot and cold water, sand and the brush, should be most thoroughly applied, and in some cases nitric acid, to get rid of metals.

Measuring Glasses. These lessen the labor of counting the drops of strong alcohol and distilled water.

Presses. These should be so constructed that they can be readily taken apart and cleansed most thoroughly. The plants and seeds that are to be pressed are inclosed in a linen bag, free from starch and bleaching materials, then subjected to the action of the screw press, and the juice runs into a suitable vessel below. No bag should be used for two different substances.

Sieves. These should only be constructed of hair or silk; the hair for the preparation of tinctures, the silk for making triturations.

Spatulas and Spoons. These should be of horn or porcelain.

Funnels. These should be made of porcelain or glass.

Chopping Boards. These should always be of seasoned maple, perfectly sound and free from knots.

Chopping-knife. This should be made of good steel, and always kept well polished. Rust decomposes many vegetable juices instantaneously.

Scales. Physicians' scales should have three kinds of pans: Brass for prescriptions; glass, used exclusively for caustic and hygroscopic substances; and horn for sugar of milk, poisons, and various substances.

THE CLEANSING OF UTENSILS.

The utmost cleanliness must be observed when making Homœopathic preparations. All utensils should be cleansed immediately after use. The mortar should be repeatedly scalded with boiling water, and in many cases the brush with sand should be used. After each scalding, it should be thoroughly dried, then afterward placed in an oven and dried with a high temperature. Glasses and bottles are to be cleansed in the same way, then rinsed with distilled water, and dried carefully in an oven with a moderate temperature. Glasses and bottles that have been used for a particular remedy, however well cleansed, should never be used for another drug or preparation. The best way is to get your bottles new from the factory; then you have only to deal with dust, which is easily removed by shaking, cleaning with a small brush, and subsequent rinsing with alcohol. Corks should be first washed

with distilled water in a hair sieve, then rinsed with dilute alcohol, and well dried. Boiling water or steam will ruin corks. True, they will look whiter; but they will become bulky, soft, and lose their elasticity, and soon fit the bottle very loosely. The press should be cleansed immediately after use, most thoroughly, with cold and hot water, and well dried.

TEMPERATURE.

Extremes of temperature should be most carefully avoided. The room where you keep and prepare your remedies should be of a moderately comfortable temperature; many of our mother tinctures will become turbid, with a muddy sediment, or form crystals, by being exposed to great cold. On the other hand, too much heat is often injurious. Many physicians put their medicines upon hot mantels. A worse place can not be selected in the office.

NEUTRAL SUBSTANCES.

Distilled Water. This is prepared from *rain-water*, in an apparatus expressly designed for that purpose. Water being the great solvent for almost everything, it behooves us to procure it absolutely pure. Common water is always impure, being charged with earthy matters, gases, etc.; and rain-water, after a storm, contains ammonia with nitric acid. Pure water should be without taste, smell, or color. The pharmacopœia directs that water be distilled in glass or porcelain stills. This is wrong; for the hot steam will dissolve the Silex, and this Silex will be shown as a cloud in the water after a few days. We should therefore use *metallic stills*.

There is a metallic still with a receiver of block-tin, that answers a good purpose; but I like the one used in the Pharmacy of Boericke & Tafel the best. It is a copper still, with the receiver and worm both lined with gold. This insures purity as far as this is possible.

In distilling water, not over three-quarters of the water in the still should be used, and the first quart coming over should be thrown away. The crucial test of your distilled water, is whether it keeps or not. If it has any kind of smell, or becomes turbid, it is unfit for use and must be thrown away. For organic matter a good test is Nitrate of silver. When water is treated with Nitrate of silver, if pure, it remains colorless, even in the sun-light. Absolutely pure water will keep for years, if put at once into glass-stoppered bottles, before spores and dust floating in the air can con-

taminate it. If the common cork is used, it will soon mold and contaminate the water.

Distilled water is used for many chemical purposes; for the solution and potentizing of triturations and salts, and especially for the potentizing of acids. Many of our remedies have to be run up through the first three potencies with water.

Alcohol. This, like water, is seldom pure; for all the science and ingenuity of man have been taxed for its adulteration. The impurities most frequently found in alcohol are acids, chlorine or chlorine metals, water, and especially fusel oil, and many other impurities that are very difficult to detect. The presence of acids is detected by the use of litmus paper; chlorine metals, by the use of nitrate of silver; a few drops of a solution of this agent, will cause a white cloud, or precipitate of chloride of silver to settle. To detect fusel oil, add one-fourth or one-fifth of a solution of nitrate of silver; expose the mixture to the sun's rays. After a few days there will settle a blackish precipitate. The water is demonstrated by the use of the alcoholmeter.

Alcohol, or spirits of wine, is always the product of art, and is formed every time that sugar comes in contact with a fermentable matter in water, at a suitable temperature; and it may be obtained from a great number of vegetable substances, such as wine, cider, malt, sugar-cane juice, grape dregs, pounded cherries, molasses, juice of carrots, beets, potatoes, honey, beer, and germinating cereals. That made from rye or wheat is best for Homœopathic uses, and that found in the market must be most carefully re-distilled.

Proof Spirit, as adopted by the United States, contains 50 per cent by volume of absolute alcohol and water, with a specific gravity of 0.935, at 15.55° C. (60° F.). *Second proof* is 52½-per-cent alcohol, specific gravity 0.931. *Third proof*, 55½-per-cent alcohol, specific gravity 0.925. *Fourth proof*, 58-per-cent alcohol, specific gravity, 0.920. The British *proof spirit* has the specific gravity of 0.920.

Pharmacutists buy the best Cologne Spirits, and re-distill it in stills made of copper, and lined with block tin. This still is placed in a larger tin or iron vessel, so arranged that the copper still is completely surrounded by hot steam, which causes the alcohol to slowly evaporate through the long worm placed in a receiver so constructed that cold water constantly flows over the coil, and the alcohol is condensed and falls into a vessel ready to receive it. This still may hold four gallons of alcohol, and the first pint that flows through the still, and the last quart, should not be used.

Pure alcohol is a colorless fluid, which must not lather when rubbed in the hands, and have no bad odor; the odor is penetra-

ting, and the taste pungent. It burns with a white flame at the center and blue at the edges, leaving no residue; dissolves perfectly in water; and, on account of its affinity for atmospheric moisture, it evaporates rapidly. It has a specific gravity of from 96 to 100; but for Homœopathic uses it is reduced to 83 per cent with distilled water; and in many instances this is too strong, as, for instance, in making many first dilutions, it has to be reduced to 50 per cent. The same may be said of tinctures. The great use for alcohol with us is found in the manufacture of tinctures and dilutions.

Sugar of Milk. This is a product of animal life, and constitutes a large percentage of the mother's milk. For Homœopathic uses it is principally manufactured in Switzerland, from goat's milk, by inspissating and crystallizing the whey. That which comes to us is more or less mixed with dust, soot, wood, etc., and has to undergo a further re-crystallization; the large sticks are reduced to a coarse powder, and then boiled in double the quantity of distilled water. While boiling hot, it is filtered through white blotting-paper spread over a new linen cloth which is placed on an earthen vessel that is large enough to not only receive the menstruum of sugar of milk, but, in addition, as much strong alcohol as we have used of water. These two liquids, as soon as they come in contact with each other, cause the sugar of milk to be precipitated in sharp-pointed crystals upon the bottom and sides of the vessel. This process should be carried on at the lowest possible temperature, to facilitate the precipitation of the sugar of milk.

After a few days the liquid is poured off slowly, then the sugar is detached from the vessel, washed thoroughly with distilled water, spread in thin layers on clean paper over fine sieves, and dried, then pulverized fine in an iron mortar, placed in well-closed glass or earthen jars, and set in a dry place, as, when damp, it becomes musty.

Sugar of milk is used for the manufacture of our triturations, making powders, and as a dietetic article. The marvelous sagacity of the mind of Hahnemann is seen in his selection of sugar of milk for the process of comminution of our drugs. No other known substance could equal the sharp, flinty crystals of sugar of milk in grinding to an inconceivably fine powder our hard minerals, so that they can be most rapidly absorbed by the human body and thereby become our most potent drugs.

Ether. This agent has not found as large a sphere of usefulness in our school as it deserves. The day is close at hand, when the ethereal tinctures of many substances will be prized as far

superior to those of alcohol. The strong acids, fixed oils, balsam, several kind of resins, sulphur, phosphorus, bromine, and many hydrochloric salts are perfectly soluble in ether. It dissolves in ten times its weight of water ; but, with alcohol and all the essential oils, it unites in all proportions.

Globules. These should be prepared from the purest cane sugar, and pretty hard. The addition of anything, as starch etc., must be considered as an adulteration. They should completely dissolve in distilled water. As a drug-medium, they are very useful in the Homœopathic school, and are used in ten different sizes.

THE PROCURING OF MEDICINAL SUBSTANCES.

FRESH PLANTS.

In collecting medicinal plants, it is very important that they should be gathered in localities to which they are indigenous ; and particular regard should be paid to their surroundings. For example, plants whose natural habitat is in moist soil, will have their virtues greatly modified when growing in dry soil, and *vice versa*. The same may be said about climate. Tropical plants will depreciate in a temperate climate, and *vice versa*. The same may be said of plants growing in calcareous soil ; they will have their medicinal power greatly vitiated in a soil of rich loam. The same is true of plants that select sunny slopes ; they will deteriorate in situations that are shady. Wild plants have proved to be far superior to those cultivated in gardens, and the cultivated plants never should be used if the wild ones can be procured. Plants cultivated in botanical gardens should not be used for medicinal purposes.

Only healthy, strongly developed, perfect plants, free from all kinds of dust, nests of vermin, etc., should be selected. Plants that through old age have acquired a woody consistence, ought not to be used.

Plants should not be gathered immediately after a shower, or during the early morning dew, but in fine, sunny, dry weather. Neither should they be carried about much in the excessive heat of the day, nor should they be too closely packed.

Plants which have the greatest degree of medicinal activity are those found in their natural places of growth, and are *perfect* plants. All sickly-looking, partially withered, or decayed plants or roots should be rejected. Narcotic plants should be gathered while in bloom ; others just before, or when coming into, bloom.

If the whole plant is to be used, it should be gathered when it is partly in flower and partly in seed.

Flowers should be collected when they are just ready to open, or just opened. In some cases the buds are to be preferred to the expanded flowers. These should be collected when in a dry condition, free from dew or rain, being careful to pick off all foreign or decayed matter. All bugs, beetles, etc., if not taken out, will spoil the preparation completely. For example: *Arnica* flowers are so infested with a small insect, similar in its action to *Cantharis*, that they never should be used. The tincture of *Arnica* should be made always from the green root.

Leaves should be gathered as soon as they are matured, before the fruit or seeds are ripened. Leaves from biennial plants, must be gathered only during the second year, as their leaves are not perfect the first year. These should be collected just before inflorescence.

Berries, Fruits, and Seeds should be collected when fully ripe.

Bulbs should be gathered as soon as matured, when the leaves begin to decay.

Barks should be taken off late in the autumn, rejecting that infested by insects, and the dead epidermis; resinous barks, just before the development of the leaves.

Body Wood, in the late autumn or spring, before the sap rises, or buds are developed, from a vigorous, healthy tree, not too old or too young. This should be reduced to sawdust, shavings, or fine chips, being careful to have the tools used free from rust or grease. If the young shoots are the parts used, they should be collected in the late autumn.

Roots. These should only be gathered in the autumn, after the leaves have fallen, if the plants are perennial. From biennial plants, in the fall or spring of the second year. From annual plants, just before the seeds ripen.

Dr. F. E. Boericke says: "Roots gathered in the fall will suit people with Allopathic notions in their heads better because they contain a minimum more of what is styled the active principle. I must say that these old, hard, wooden roots, as they are in the fall, present very little life. I think more of roots gathered in the spring, when they are full of sap, ready to start into new life and energy." This is a good, practical hint.

The Cleansing of Plants should be done by beating and brushing the dirt off. They ought never to be washed, excepting the roots of water-plants, which may be washed freely. By means of a brush, we can remove all the dust and dirt, and everything that may cling to them.

PREPARATION OF MOTHER-TINCTURES.

The preparation of mother-tinctures as given by Dr. F. E. Boericke in his practical lectures on Homœopathic Pharmaceutics, agreeing substantially with Dr. Willmar Schwabe, is given with so much more of the minutiae and with such a masterly hand, that I have taken the liberty of copying it in full. He says :

“Class I.—Your fresh plant or part of a plant is cut in small particles (with a well-polished steel knife, free from rust, on a well-cleansed chopping board), pounded in a wedgewood mortar, then placed in a clean new linen cloth, and the juice expressed by means of a press, or by wringing the cloth. Weigh the expressed juice, and add to it an equal weight of strong alcohol in a glass jar. Set this aside for a week, and then filter, when your tincture is ready. This is Hahnemann’s prescription for making essences ; and it has to be followed out with all plants, of which the provings were obtained of preparations made as above, and may be done with all which are juicy. A great many tinctures of European plants are prepared that way, and therefore have to be imported in that state of tincture or essence.

“You will see that the juice of plants was considered by Hahnemann to contain all the active forces of the medicine, and this constitutes the original drug ; the alcohol is added only to make the preparation keep. The tincture, containing one part drug and one part alcohol, represents one-half of the original drug ; and, in potentizing such a tincture, you have to take, for the first decimal preparation, twenty drops of tincture to eighty drops of dilute alcohol, or, for the first centesimal preparation, two drops of tincture to ninety-eight drops of dilute alcohol,—i. e., half water and half alcohol,—in order to make the first potency, in either case containing strictly one-tenth or one-hundredth part of the original drug. Mark, I say dilute alcohol, for if you take strong alcohol you will get a sediment, showing that some parts of the tincture are thrown down, whereas your potency *must* always contain *all* that is in the tincture. That such a sediment contains only starchy matter of no medicinal virtue, is no argument at all. The next potency may be prepared, like the rest, with strong alcohol.

“Class II.—This includes, also, mostly European plants, but such as are less juicy, from which the juice has to be extracted by means of two-thirds of strong alcohol ; the tincture of these therefore also represents one-half of the original drug. [“The finely chopped plant, or part thereof, is weighed. We then take two-thirds, by weight, of strong alcohol, and moisten the chopped

plant with as much of it as is necessary to bring the mass to a thick pulp, and stir it well. Then, adding the rest of the alcohol, the whole is mixed well together and strained (or pressed) *lege artis*, through a piece of new linen. The tincture thus obtained, after standing eight days in a well-stoppered bottle, in a dark, cool place, is then filtered."—*Schwabe*.]

"There are only few in this class. The first potencies are made in the same proportion as Class I.; that is, twenty to eighty for the first decimal, and two drops to ninety-eight drops for the first centesimal, potency, but we take strong alcohol.

"*Class III.*—This includes a great many remedies; and it is this class with which we in this country have most to do, as all our American remedies are prepared in accordance with it. After having reduced the plant, or part of the plant, as before mentioned, and having weighed it, we add double the weight of alcohol to it. After two weeks the tincture is pressed out and filtered. It represents the sixth part of the plant as the original drug (always considering the juice of the plant as the original drug); and, in starting your dilutions, you have to take sixty drops of the tincture to forty of alcohol for the first decimal, or six drops of tincture and ninety-four of alcohol for the first centesimal dilution.

"*Class IV.*—All the dry substances [vegetable and animal], such as we generally obtain from the trade, are prepared according to this class. Have your substance well powdered or pounded, and, after weighing it, add five times its weight of alcohol. Let the well-closed bottles or jars stand for two weeks, pour off, press, and filter, and your tincture is made. It represents the tenth part of the drug [and is the first decimal potency]; and, to make the first centesimal potency, you take ten drops of the tincture to ninety of alcohol.

"There are yet some other vegetable products which come under neither class, such as the resins, Guaiacum, etc. After powdering them and adding nine parts of strong alcohol, they dissolve almost entirely; we therefore do not consider them as tinctures, but as alcoholic solutions, and treat them as the first decimal dilutions from which further potencies are made. In preparing tinctures according to Classes III. and IV., they should be well shaken two or three times.

[*These four classes will be referred to in the first line under the name of each remedy.*]

"*Animal Kingdom.* The transformation of animal matter into remedial agents is done in the same way as with those from the lower kingdoms; i. e., either by trituration or by extracting a tinct-

ure, and thus starting our potencies. In some cases, we make use of the entire animal, as with *Apis mel.* [Hering says it is foolish to take the whole bee, with all the foreign matters, which color the tincture, but the pure poison from the sting-sack is the only part that should be used, potentized in alcohol, or prepared in oil or glycerine for external use], *Cantharis*, and *Diadema*, of which tinctures are prepared according to Class IV. The excretory animal products, as *Musk*, *Castoreum*, and *Mephitis*, are prepared also according to Class IV.; and of course their first potencies are prepared in accordance with the rule there given."

Trituration. This is a process by which drug particles are still further broken up and subdivided. By this method in Homœopathic Pharmacy, not only are all substances made soluble, but even *inert substances* in their crude state are developed into active medicines, and every drug subjected to it is brought nearer to animal life. Substances that are supposed to be insoluble are made perfectly soluble in alcohol and water. This great discovery belongs to Hahnemann, and is not yet fully recognized by modern science. Any coarse, dry substance, if triturated by itself, i.e., without any admixture, can only be divided to a limited extent. At length it reaches a point, where, instead of further division, many of the particles unite again. To carry on the process of dividing and subdividing, and to prevent the particles reuniting, Hahnemann introduced that indifferent body, *Sugar of Milk*, and, with this, carried on the division until it could be continued no longer, because the dividing body, sugar of milk, had reached the limit of division. Then Hahnemann added more sugar of milk; and, through this addition, a still finer division was effected, until the limit was reached again, when another addition of this inert substance was made and a further division was effected; and so on, again and again. The drug particles had now become so fine that the heavy, gross particles of water or alcohol, prevented their settling down, and they floated through these media with as much ease as dust in a sunbeam, being now, it may be said, in a state of perfect solubility. But now let us see what our great leader Hahnemann has to say about the manner of triturating our drugs:

"Of the so pulverized substances, you take one grain; *Mercury* may be used in the liquid state; of *Petroleum*, you take one drop instead of one grain. Put this grain into an unglazed porcelain mortar. Then you take thirty-three grains of sugar of milk, and mix them with the drug by triturating the mass with some force for about six minutes by means of a porcelain pestle. Before you triturate, stir the mass for a little while with a spatula. Having

trituated the mass, you stir it again for about four minutes, scraping up that part which covers the bottom of the porcelain mortar, and also that which adheres to the pestle ; then you triturate again with greater force for six minutes, without, however, adding anything new. This mass you scrape up again for four minutes, add another thirty-three grains of sugar of milk, stir the new compound for a while with the spatula, then triturate it for six minutes, scrape it up for four minutes, triturate again with great force for six minutes, scrape the mass up again for four minutes, then add the last thirty-three grains of sugar of milk, and with this last added portion proceed as with the two former. This powder you enclose in a well-corked glass, and mark it with the name of the substance, and the figure 100, to show that this is the one-hundredth potency of the substance.

“In order to prepare the degree 1000000, or I, you take one grain of the degree 10000, and go through the processes of stirring and triturating in the same way as before, employing upward of an hour for the preparation of each different potency.

“For the sake of establishing uniformity in preparing Homœopathic remedies, and especially the anti-psorics, I never carry the process of triturating above the millionth degree. From this degree I derive the dilutions in their various degrees of potency.

“For the process of trituration a certain force should be employed ; not so much, however, as to cause the mass to adhere too tenaciously to the mortar to be scraped up in the space of four minutes.”

The introduction of the decimal scale, by Dr. Hering, has greatly modified trituration. The earlier Homœopathic physicians used a mortar about three inches wide ; and now we use mortars from eight to twelve inches in diameter, and triturate from ten to fifteen hundred grains at once. Mortars for common use should hold about two quarts, then fifteen hundred grains can be triturated nicely at one time.

Decimal Scale of Trituration. This scale is made in the following manner : Weigh out three times three hundred grains, which makes nine hundred, of sugar of milk. Now take one hundred grains of the crude substance to be triturated and add to it the first three hundred grains ; triturate twenty minutes. Stir up the mass four minutes, then add the second three hundred grains, triturate twenty minutes ; stir again for four minutes, and then add the last three hundred grains, and triturate twenty minutes more, using considerable force, which completes the trituration.

The centesimal scale is made in the same way as the above, with this difference, only ten grains of the crude drug are used to

nine hundred and ninety of sugar of milk. I have found that the stirring-up and scraping process to free the drug from the mortar can be completely done away with by simply using a little alcohol to moisten the sugar of milk with. If this is done, trituration will be found to proceed with great facility and perfection.

Triturations to be potentized should be carried up to the sixth decimal, or the third centesimal. And, as a general rule, hard substances are triturated more easily than soft ones. Zincum and Iridium are the hardest bodies we have to triturate; but they show finer and much more equal molecules than Graphites, Plumbum and Mercury. If you wish to triturate Lead well, you will have to use your pestle very softly; and you must triturate Mercury, Graphites, and Lead double time when preparing the first trituration. To triturate and preserve Iron in its metallic state, all moisture must be driven out by keeping the mortar continually warm.

Hygroscopic salts—i. e., those which eagerly absorb moisture from the atmosphere; such as *Calcarea caustica*, *Kali carb.*, *Kali hyd.*, and *Calcarea chlorata*—will not keep well in trituration. *Argentum nitricum* can only be kept a few days in trituration before the *Argentum* decomposes the sugar of milk and it is destroyed.

Potentizing. This is done by transferring triturations into liquid solutions, or potencies, in the following manner: Take ten grains of the sixth decimal trituration and ninety drops of distilled water, place them in a suitable bottle and shake thoroughly (the more shaking the better). This is called the 7th dilution (to distinguish from trituration). Then take ten drops of this seventh dilution, place in a bottle and add ninety drops of pure alcohol and succuss the vial as above, which produces the 8th dilution. This can be carried on as noted above to any potency desired.

To prepare the dilutions on the centesimal scale, we take one grain of the third trituration, place it in a bottle of suitable size, add fifty drops of distilled water and fifty of alcohol, and succuss as for the decimal scale, and mark it 4th dilution. Of this fourth dilution, take one drop, add ninety-nine drops of pure alcohol, and succuss as above; mark this 5th, and so on *ad libitum*.

Bottles used in potentizing should not be more than two-thirds full.

EXTERNAL APPLICATIONS.

External Applications consist of cerates, glyceroles, liniments, ointments, lotions, plasters, poultices, etc., of which I will only mention a few, to give a general idea of their preparation.

Simple Cerate. Take of lard eight troy ounces, and white wax four troy ounces, melt them together in a water bath, and stir constantly until cool. Cosmoline may take the place of lard, with many drugs.

Arnica Cerate. Tincture of Arnica one ounce, simple cerate one pound; melt in a sand bath, and stir till cold. Many remedies can be prepared and used in this way.

Æsculus Cerate. One ounce of tincture, simple cerate one pound, glycerine one ounce, white wax one ounce. Mix the tincture with the glycerine, put all in the melted cerate, stir till cold. Hamamelis, Lycopersicum, Urtica urens, Graphites, and many others, the same as Æsculus cerate.

Ointments. These differ from cerates in being softer. Cosmoline, or Petrolin, as a base for ointments, prevents decomposition, and at the same time is more penetrating than the simple cerate. They can be used on the most delicate membrane. Many remedies can be introduced into dissolved cosmoline or vaseline, and should then be stirred until cool.

Belladonna Ointment. Extract one part, to nine of wax ointment; thoroughly mix in a mortar, or by heat.

Sulphur Ointment. Flowers of Sulphur one ounce, glycerine one ounce, simple ointment fourteen ounces; stir while cooling.

Mercurial Ointment. Take twenty-four ounces of Mercury, twelve ounces of lard, twelve ounces of suet, and two ounces of Ether; triturate thoroughly. The metal will be readily extinguished. Glycerine will do the same thing; keep cool.

Calomel Ointment. One part of Mercury to nine of cosmoline.

Red Oxide of Mercury, sixty grains, ointment four hundred and twenty grains; triturate thoroughly.

Iodine Ointment. Iodine twenty grains, Iodide of Potassium four grains, lard one ounce. Rub the Iodine and Iodide of Potash with six minims of water first, and then add the lard until thoroughly triturated.

Acetate of Lead Ointment. Take twelve grains of Lead to one ounce of Benzoated lard; mix thoroughly.

Glycerols. These are readily made by triturating in a mortar undiluted glycerine with the desired remedy.

Glycerole of Carbolic Acid. Take two ounces of Carbolic acid and one-half pint of glycerine. Mix.

Glycerite of Borax. Take Borate of Sodium two ounces, and one-half pint of glycerine. Mix.

Glycerole of Hydrastis. Take Hydrastis tincture one ounce, glycerine four ounces. Mix.

Glycerole of Starch. Take eight ounces of glycerine and one ounce of pulverized Starch. Triturate, then stir over a fire until the starch granules burst and a clear jelly is formed. This is an excellent medium for many remedies, in the proportion of one drachm of tincture to the ounce of glycerole.

Liniments are liquid preparations, generally oily or soapy, for external use.

Linimentum Camphoræ. Take of Camphor half an ounce, Olive oil two ounces. Or, an ounce and a half of Camphor, two fluid drachms of Chloroform, and two ounces of Olive oil.

Linimentum Saponis Camphoratum. Take of common Soap, sliced, three ounces; Camphor one ounce; alcohol one pint; Oil of Origanum and Rosemary, each a fluid drachm. Digest the Soap with the alcohol, in a hot sand-bath, and then add the Camphor and oils. This liniment is sold under the name of *Opodeldoc*. For sprains, bruises, and rheumatic pains, it is very useful.

Plasters are solid compounds, for external application, adhesive at the temperature of the human body, and are mostly composed of Olive litharge. They are prepared for use by spreading them upon linen, muslin, or leather.

Adhesive Plaster. Take Lead plaster three pounds, melt over a gentle fire, and add half a pound of Resin in powder. Mix. This is the common adhesive plaster of the surgeon.

Court-plaster. Dissolve isinglass in boiling water, then spread on oiled silk. It is better still if a little of the tincture of Benzoin be added.

We use plasters of Belladonna, Arnica, Rhus tox., Aconite, and many other remedies.

Collodium. This substance is a solution of Gun-cotton and Ether. When applied to the skin, it contracts and becomes very adhesive, tends to drive the blood from the parts, and prevents its return; by doing so, it limits effusion and promotes absorption. It is eminently protective in its operation, entirely excluding the part which it covers from the air, and is of great value in the treatment of many skin diseases, ulcers, and lacerated wounds. Before its application the parts must be completely dried. After the first touch with the camel's-hair brush, allow the Collodium to dry a little before the second application. Fissures, especially of the nipples, are speedily cured with Collodium; the same with the stings and bites of insects. In dressing wounds, lint or linen cambric saturated with the liquid, should be laid on the coaptated parts.

SACCHARATED EXTRACTS.

A very valuable improvement has recently been introduced in Pharmacy by Prof. C. Gilbert Wheeler, of the Hahnemann Medical College of Chicago, whereby we are able to procure a concentrated preparation representing *all the medicinal properties* of the *crude drug*, free from its sterile and inert substances. These preparations have been named by him *Saccharated Extracts*, for the reason that Sugar of Milk takes the place of the inert woody fiber, starch, gum, etc., of the original substance.

The process consists in exhausting the crude drug completely and carefully in Alcohol, Ether, etc., then evaporating the percolate to a solid extract. To this, sufficient Sugar of Milk is added to bring the mixture to the same weight as that of the crude material employed. The whole is now triturated to an impalpable powder, and the product is finished. During the operation, the yield of the solid Extract is noted, which must attain a certain fixed standard of percentage in relation to the crude drug. In the more powerful remedies, i. e., Aconite, Belladonna, Nux vomica, Veratrum viride, etc., an assay is made of their alkaloids, to find whether they fully represent the standard adopted, made from the best article of the plant that grows; if not, they are discarded as unfit for use. By these precautions, a more uniform and reliable product is undoubtedly obtained,—a great desideratum to the practicing physician; for *tinctures*, and especially fluid extracts, are often found perfectly worthless. But, in these preparations, one grain of the Extract *invariably represents one grain* of the *perfect* crude drug from which they are obtained.

A powder thus obtained, might be called a *soluble drug* of definite strength and quality, free from the deterioration which all tinctures and *fluid extracts* are liable to undergo. In fluid preparations, particularly the more concentrated, a gradual precipitation takes place, so that the clear filtered liquid does not fully represent the remedy. Tinctures, although well made, will gradually become unreliable.

These Extracts, so perfectly preserved by the antiseptic properties of Sugar of Milk, are not only unchangeable, but very convenient for making triturations, as they are *the drug itself in a minute state of subdivision and in a soluble form*; and, by their use, we can always know, with absolute certainty, just how much of the medicinal substance we have in our triturations. They have already received the sanction of high Homœopathic authority, and are being rapidly introduced to the profession.

PHYSIOLOGICAL MATERIA MEDICA.

ACONTIUM NAPELLUS.

Wolf's-bane.

Habitat. Central Europe. Tincture of the fresh plant, Class I.; of Root, Class III.

Antidotes.—Vegetable acids, Wine, Bell., Coff., Verat.

Through the cerebro-spinal nervous system, Aconite has nine special centers of action:

- I. HEART. *Inhibitory Paralysis; Blood-Pressure Lessened.*
- II. CIRCULATION. *Vaso-Motor Paralysis.*
- III. TEMPERATURE. *Depressed, with Diaphoresis.*
- IV. CEREBRO-SPINAL NERVOUS SYSTEM. *Paralysis.*
- V. MUCOUS MEMBRANES. *Sthenic Inflammation.*
- VI. STOMACH. *Emesis; Congestion; Neuralgia.*
- VII. LUNGS. *Centric Vagi Paralysis; Congestion; Inflammation.*
- VIII. TENDONS AND FIBROUS TISSUES. *Rheumatoid Inflammation.*
- IX. SEROUS MEMBRANES. *Plastic Inflammation.*

Heart and Arterial Capillary Blood-Vessels.—Toxic doses of Aconite paralyze directly the nervous ganglia of the heart, which are its rhythmically discharging centers, producing at first a reduction of the number of heart pulsations, and then an increased action, with evident loss of muscular power; finally, irregular systolic movements, with very long intervening pauses, ending in diastolic paralysis. Each individual pulsation is lessened until death, when the muscle of the heart will not respond to galvanic irritation, its contractility being destroyed.

Dr. Sydney Ringer says: "Aconite certainly affects either the muscular substance or the contained ganglia of the heart; on this point all observers are agreed; for Aconitia affects the heart after section of the pneumogastric, or the administration of Atropia, which paralyzes this nerve; and it affects the extirpated heart in the same way as it affects this organ in situ. It is maintained, however, that it acts also through the pneumogastric; Boehm and Wartmann believing that it paralyzes the termination of this nerve; Achscharumow, that it first stimulates the inhibitory center of the pneumogastric, and so slows the heart, and then the pneumogastric becomes exhausted and at last paralyzed, and then the heart beats quickly and irregularly."

"The action of Aconite upon the circulation is very decided. According to Dr. Achscharumow, in the frog a moderate toxic dose of Aconitia produces at first a reduction in the number of the heart's pulsations, then an increase of rapidity of its action, with very evident loss of power, and finally irregular systolic movements, with very long intervening pauses, ending in diastolic arrest. Drs. Rudolf Boehm and L. Wartmann have confirmed these observations.

"In animals, the exhibition of Aconite in sufficient doses yields similar results. In the dog and cat, there is a steady sinking of the arterial pressure; in the rabbit, this fall is preceded by a brief rise. The rate of the heart's pulsation also undergoes reduction; and there is finally diastolic arrest in these and other mammals.

"The method by which the Aconite influences the heart is not certainly settled. According to the experiments both of Boehm and Wartmann, it produces a gradual paralysis of the peripheral vagi; a constant increase of the intensity of a galvanic stimulation of the pneumogastric nerves being required to influence the heart as the poisoning deepens, until finally the vagi entirely refuse to transmit any inhibitory impulse.

"In a single experiment, Achscharumow found, that, after section of the vagi in the early stage of Aconite-poisoning, there was an immediate rise, both in the number of the cardiac pulsations and in the arterial pressure. From these data he argues that the slowing of the pulse during the early stage of Aconite-poisoning, is due to stimulation of the inhibitory centers in the medulla oblongata. Boehm and Wartmann repudiate this conclusion; because, according to their experience, the phenomena of Aconite-poisoning occur in the usual manner, after section of the vagi, or in the atropized animals. It is evident that there is no necessary contradiction in the asserted facts of these observers, as it is possible that the slow-

ing of the pulse may be due to two immediate causes, one having its seat in the medulla oblongata, the other in the heart. Although the explanation cannot be considered proven, it is probably correct; as Lewin agrees with Achscharumow that there is a primary rise of the pulse when Aconitia is given after section of the vagi, but states that this rise is of very brief duration, and is soon followed by the usual reduction. It is very certain that Aconitia also influences directly the heart, or its contained ganglia, for Achscharumow has found that it acts upon the frog's heart removed from the body, and Liegeois and Hottot have observed the ordinary cardiac phenomena of Aconite-poisoning, produced by the alkaloid placed directly upon the viscus. Boehm and Wartmann have also noted that in Aconite-poisoning the force of the individual beat is lessened. After death the cardiac muscle fails entirely to respond to galvanic irritation, its contractility being lost."—*Dr. H. C. Wood, Materia Medica.*

"Aconite is a protoplasmic poison, and destroys the functions of all nitrogenous tissue; first of the central nervous system, next of the nerves, and last of the muscles; but it has an especial affinity for the sensory apparatus, paralyzing first the sensory perceptive center, and, through this central nervous system, is a powerful depressant of the motor nerves and muscles. Aconite affects all the structures of the heart; first its ganglia, next its nerves, and last its muscular substance."—*Ringer.*

Upon the arterial capillary vessels, through the vaso-motor nerves and heart, we have paralysis, with its attendant congestion, and all the symptoms of inflammation, in all the tissues that have capillary vessels. Dr. Wood does not believe Aconitia acts on the vaso-motor nerves, but that it destroys the conducting power either of the afferent nerves or of the cord, so that in the animal under its influence no impulse can be transmitted from the periphery to the vaso-motor centers in the medulla; but Bartholow says it is a direct sedative to the vaso-motor nervous system.

Cerebro-Spinal Nervous System.—The action of Aconite upon the animal nervous system, is not fully settled. Liegeois and Hottot believe that it first paralyzes the perceptive centers, above the spinal cord, and afterward the terminations, and lastly, the trunks of the sensory nerves.

Boehm and Wartmann conclude that Aconite first paralyzes the sensory and then the motor part of the cord.

Achscharumow concludes that it paralyzes both the trunks and terminations of the cerebro-spinal motor nerves, but leaves the muscles unaffected.

Dr. G. Hunter Mackenzie says: "Aconite's action on the nervous system consists in first irritating, and secondly, paralyzing, the peripheral sensory nerves, and posterior roots of the spinal nerves. Increases the irritability of the peripheral motor nerves, and of the motor columns of the cord. Does not induce muscular paralysis, but, on the contrary, increases the irritability of the voluntary muscles, inducing convulsions, mainly augmenting the irritability of the anterior column of the cord, and the motor nerves and muscles."

"It may be considered settled that Aconite has no *decided influence upon the motor nerves*. At the same time the poison would seem to have some such influence, because, when brought in contact with an exposed nerve, Aconitia rapidly destroys its functional activity, and, after death in the Aconitized frog, the motor nerves lose their irritability more rapidly than normal. Further, it should be noted, that, when in frogs the convulsions are very severe, the motor nerves seem temporarily to lose their functional power from exhaustion.

"A very complete and beautiful investigation of the action of Aconitia upon the spinal cord has been made by Dr. Liegeois and M. Hottot. According to these observers, in Aconite-poisoning loss of sensibility occurs in the frog's legs simultaneously with, or even before, the disturbances of respiration, and long before the power of voluntary motion is lost; and even when the reflex activity is intact. This sensory paralysis, according to the experiments of the French investigators just quoted, first appears in the hind legs of a frog poisoned with Aconitia, and has not its primary seat either in the peripheral nerves or in the spinal cord; for it was found that tying the aorta close to its abdominal bifurcation, so as to prevent access of the blood—i. e., of the poison—to the posterior nerves, did not affect the development of the anæsthesia; further, that closing the artery nearer its origin in such a way as to shut off the circulation to the cord and spinal nerves, but to allow the passage of the blood to the cerebrum, did not cause sensory paralysis to come on more slowly than normal in poisoning by Aconite.

"Of course, it is possible for the peripheral ends of the sensory nerves to be paralyzed either at the same time that the perceptive center is, or afterward; and, of course, the center being paralyzed, it becomes very difficult to determine whether the periphery is or is not affected. Liegeois and Hottot assert that this paralysis of the center occurs before any serious implication of the peripheric nerves, because, after Aconitic anæsthesia had been pro-

duced, Strychnia was able to produce tetanus; afterward, however, the extreme peripheric nerves became affected, so that irritation of the skin in the doubly poisoned frog would not provoke convulsions, even at a time when irritation of the trunk of a nerve would produce general reflex motor disturbance. At last galvanization of the nerve-trunk itself failed to induce response. From these facts, Liegeois and Hottot deduce—very logically, I think—the conclusion that Aconite induces anæsthesia by paralyzing, first, the perceptive centers; secondly, the peripheral extremities of the nerves; thirdly, the nerve-trunks themselves. The observers alluded to also confirmed this conclusion by other experiments than those already noticed. They found, that, although Aconitia applied directly to a nerve-trunk paralyzes its sensibility, yet when the veins of a frog's leg are tied and the alkaloid injected into the artery and allowed to penetrate the tissues of the leg, the skin loses its sensibility long before the nerve is affected.

"In regard to motion, Liegeois and Hottot found, that, in a certain stage of Aconitia-poisoning, the frog lies with his limbs extended, relaxed, and perfectly paralyzed, and yet is capable of executing vigorous voluntary movements, and evinces nearly normal reflex activity. They attribute this condition of apparent but not real motor paralysis, to loss of sensibility from paralysis of the perceptive center; as the unpoisoned frog evinces the same phenomena after division of all the posterior spinal roots. After a time the reflex activity is also lost, the power of voluntary movement remaining. Liegeois and Hottot believe that this loss of reflex activity is spinal; but, in their experiments upon the conjoint action of Aconite and Strychnia, it was found that at a certain stage, when no amount of irritation of a nerve would induce convulsions, a slight direct irritation of the cord would cause violent Strychnic spasms. This would seem to show that at least the earliest abolition of the reflex activity was due to paralysis of the afferent nerve-fibers.

"In some particulars the researches of Liegeois and Hottot have been confirmed by the later studies of Dr. George Hunter Mackenzie. The persistence of voluntary movement, after abolishing reflex actions, which was first noted by Boehm and Wartmann, and afterward by Liegeois and Hottot, as well as by Mackenzie, proves that, at a certain stage of the poisoning, while the motor pathway from the brain along the anterior columns and the afferent nerves is open, either the sensory nerves or the receptive centers of the cord are paralyzed. The experiments of Liegeois and Hottot upon the joint action of Aconitia and Strychnia are also ac-

cordant with those of Mackenzie; for that observer found, that, when a nerve was protected from the poison by tying its supplying artery, irritation of it caused reflex actions when the remainder of the frog's periphery was insensible; also that there is a stage of poisoning in which irritation of the extreme peripheral nerves fails to induce reflex movements, although such movements are called out by irritation of the sensory nerve-trunk; later, irritation of the trunk was powerless, while irritation of the posterior columns of the cord still produced wide-spread movements. It must, therefore, be considered proven that Aconite *paralyzes the sensory nerves, commencing at their peripheral endings*, and that the loss of reflex activity is due, at least in great part, to such cause.

"The supposed action of Aconitia upon a higher perceptive center is at present very doubtful. S. Ringer and R. Murrell (*Journal of Physiology* i., Nos. 4 and 5,) deny the accuracy of the delicate experiments of Liegeois and Hottot. They affirm reflex action is never maintained after abolition of sensation, and that Aconitia diffuses itself through the cellular tissue of the frog so rapidly as to throw doubt upon any experiments in which the progress of the power is supposed to be arrested by tying an artery. Curiously enough, Drs. Ringer and Murrell, while doubting the experiments of Liegeois and Hottot, accept the conclusions founded upon these asserted erroneous experiments, seemingly because they themselves have found that Aconitia causes abolition of reflex action more rapidly in brainless than in normal frogs. It is evident, that, if this asserted fact were true, it would in no way prove the conclusion of Liegeois and Hottot. Further, the experiments on brainless frogs were only three in number and it is perfectly possible that the rapid reflex palsy was simply the result of batrachian idiosyncrasies. The only safe conclusion on the evidence, is that the evidence does not warrant any conclusion.

"For reasons already given, the deductions are, however, now warranted by their premises. All the phenomena, except the final loss of voluntary power, are explainable by the action of the drug upon the sensitive nerves. The final extinction of voluntary movement must be due to an action upon the motor tract of the spinal cord, as the peripheral motor apparatus is not distinctly affected. Experiments by Mackenzie on frogs, have yielded apparently contrary results to those of Boehm and Wartmann as to the effect of removal of the influence of Setschenow's center upon the cord in Aconitized frogs. The difference probably depends upon difference in the doses employed. Boehm and Wartmann distinctly state, that, when minute doses of Aconitia are employed,

there is a primary period of excitement of the spinal centers. Mackenzie has found, that the convulsions which are so severe in frogs after small quantities of Aconite, are chiefly of spinal origin, but that the peripheral motor apparatus shares the stimulation with the spinal motor tract. M. Guiland also affirms this primary stimulant spinal action. If it exists at all in mammals, it is in them completely masked. The convulsions seen in Aconite-poisoning in some mammals are cerebral, not spinal; as I have experimentally determined that they do not occur in those portions of the body separated by spinal section from cerebral influence.

"As Boehm and Wartmann found that the reflex activity was lost more rapidly than the power of voluntary movement, and that no increase of reflex activity occurs in the Aconitized frog when the cord is cut so as to release it from the influence of Setschenow's reflex inhibitory centers, they draw the conclusion that the Aconitia first depresses the reflex activity of the sensitive spinal centers, and afterward that of the motor spinal centers, until the cord is completely paralyzed."—*Dr. H. C. Wood.*

Aconite is a protoplasmic poison, and destroys the functions of all nitrogenous tissue; first, of the central nervous system; next, of the nerves; and, last, of the muscles; paralyzing first the sensory perceptive center; and, through this central nervous system, it is a powerful depressant of the motor nerves and muscles. Aconite affects all the structures of the heart; first its ganglia, next its nerves, and lastly its muscular substance.

Upon the brain, we have intense hyperæmia, from paralysis of the capillary blood-vessels; as shown by the swollen face, blue lips, violent pain in the head; partial insensibility, delirium, mania, despair, whizzing noises in the ears, loss of sight, vertigo, anxiety, restlessness, etc.

Vagi.—Upon the respiratory center, Aconite is a direct depressant and paralyzant. "Aconite acts very directly upon the respiratory centers; and this effect is not produced by any stimulation of the inhibitory fibers of the vagus, and so arresting the action of the discharging center, but by the effects upon the center itself, in the medulla. The respiration, when lethal doses are taken, becomes slower and deeper, until the respiratory center is completely exhausted. We have then violent dyspnoea, inflammation and death.

"The action of Aconite upon the respiration is very decided. In mammals, the respirations, under the influence of the drug, are slow, with a prolonged expiration following immediately upon

the inspiration. After the expiration there is a long pause. The whole breathing cycle resembles very much that occurring after section of the vagi; and, like the alteration in breathing after this section, seems to be due, at least in part, to paralysis of sensory or afferent fibers. The known influence of Aconite upon the peripheral afferent nerves in general, suggests that the poison disturbs respiration by paralyzing the peripheral afferent fibers of the vagi. The evidence upon this point is somewhat contradictory, Mackenzie affirming, that, in the Aconitized animal, section of the vagi produces no effect on the respiration, while Boehm and Wartmann affirm that Aconite produces its usual effect after division of the nerves. It is plain, that, even if the Aconite does paralyze the peripheral afferent vagi, it must also act upon the respiratory centers, since arrest of respiration could not be caused by afferent palsy. As the arrest occurs in the frog before the motor nerves are affected by the poison, Liegeois and Hottot believe that the disturbance is centric; and I think there can be no doubt that Aconite is a depressant and paralyzant of the respiratory centers."—H. C. Wood.

Serous Membranes.—Aconite affects especially the capillaries of serous membranes, producing paralysis and intense congestion, through a direct impression upon the retinae of the cerebrospinal and vaso-motor nerves supplied to them. Inflammation of serous membranes does not generally go on to ulceration, sloughing and gangrene; but the fluid that is thrown out in the second stage takes on what is called "adhesive inflammation." The fluid effused undergoes such an organizing process as to glue the opposing surfaces of the serous membranes together. As soon as the second stage, that of effusion, takes place in serous membranes, the usefulness of Aconite ceases, and Bryonia, Arnica, Sulphur, or some other remedy must be chosen; but, up to the stage of effusion, Aconite is the remedy *par excellence*. The inflammation caused by Aconite is rheumatic in character; and most examples of inflammation in serous membranes are rheumatic in character; and this explains why Aconite is so useful in these inflammations.

Tendons and Fibrous Tissues.—Aconite has a special and specific action on the joints, producing inflammation of a rheumatic character; and no remedy will be so often called for in acute inflammation of the joints, especially if used locally as well as internally, prepared as an ointment, using from two to ten grains of Aconitia to the drachm of Cosmoline.

Mucous Membrane.—In cases of poisoning with Aconite, inflammation of nose, mouth, and fauces, is a striking effect of the drug. Salivation and vomiting are often well marked. This is accompanied with violent pains in the stomach, though rarely does it produce colic and diarrhœa; but constipation is most frequent and marked. Results of autopsies: The lips, and mucous membrane of the mouth and throat, are found to be destitute of epithelium, the mouth and fauces being intensely congested; the hyperæmia often extending to the stomach and small intestines, with here and there small patches of inflammation; and, in a few cases, gangrene has been found. The liver, spleen, and kidneys are all engorged, and the bladder strongly contracted.

Temperature.—Aconite first produces chilliness, more especially down the spine and sides, soon followed by general and constant burning heat, with elevation of the temperature; this is followed by copious perspiration, from an increased flow of blood to the skin. In fatal cases of poisoning with Aconite, the temperature has been found to fall three degrees; and, in acute inflammations with high temperature, no remedy will reduce the temperature with such certainty and rapidity.

"Fothergill attributes the effect of Aconite and other cardiac depressants, on inflammation, to their influence on the vascular system. It has been shown that the vascular system is always in a state of semi-contraction, and that, by paralyzing the vaso-motor nerves, it is possible to double its capacity. Aconite dilates the arterioles, and greatly increases the capacity of the vascular system, and by this means drains blood away from the inflammation; in fact, this drug 'bleeds the patient into his own vessels.' As the vessels leading to an inflamed organ are already paralyzed, Aconite does not augment the supply of blood to it;" but, in medicinal doses, it stimulates these dilated arterioles, and causes them to return to their normal state of semi-contraction, thus curing symptoms similar to those which it causes in toxic doses.

"Aconite slows and weakens the heart; hence, the circulation becomes less rapid, with corresponding decrease in its chemical changes; this diminished oxidation involving, of course, diminished production of heat." The heat is also diminished by radiation and evaporation from copious perspiration. Aconite often fails to produce perspiration in children; but, at the same time, the temperature is quickly reduced, by the action of this drug, in all synochal inflammations.

Therapeutic Individuality.

Aconite is especially adapted to the first stage of all acute synochal and rheumatic inflammations, especially if brought on by sudden changes in the temperature, from warm to cold, windy weather; sudden congestions and inflammations, with full, bounding pulse; great heat; restlessness; thirst, and great nervous excitability, with anguish of mind.

"Aconite produces, so far as we know, almost no localized diseased condition. Even when given in large and fatal doses, it acts as a depressant, paralyzing the cerebro-spinal nervous system; but it produces death by this paralysis, and without previously localizing its action in any organ or system. It gives evidence of no dyscrasia. Its action bears no resemblance to that of the poison which produces any of the miasmatic diseases, such as the exanthemata, typhus, intermittent, remittent, or continued fevers. Neither does its action, from beginning to end of a fatal case of poisoning, resemble the well-defined course of any local, acute inflammation, as of the brain, heart, lungs, pleura, etc.

"Yet, in all these pure inflammations, there is a period in which Aconite is indicated, and will do an heroic work; for every one of these inflammations which eventually become localized has a first stage which consists of arterial excitement, and which is prior to that stage that is characterized by change of function and of tissue and by local deposit. This stage is that in which Aconite plays so important a part, and in which, if promptly and judiciously employed, it may arrest and cut short the entire disease.

"Thus it may be employed in meningitis, ophthalmia, tonsillitis, croup, bronchitis, pneumonia, pulmonary congestion, and hæmoptysis, pleuritis, pericarditis, endocarditis (and as a palliative in hypertrophy), gastritis, peritonitis, acute rheumatism, neuralgia supra-orbitalis; but only when the moral symptoms named by Hahnemann, are present."—D.

When an inflammation has passed from the stage of arterial excitement to the *commencement of suppuration*, the usefulness of Aconite ceases, and another drug, like Bry., Bell., Rhus tox., Hep., Sil., or Merc., will have to be selected.

"This is in entire harmony with Hahnemann's urgent admonition to heed what he regarded as the great characteristic indication of Aconite;—"the anguish of mind and body; the restlessness; the disquiet, not to be allayed." This state of mind and body accords precisely with the general phenomena of that arterial excitement which attends the invasion of an acute inflammation;

while the localization of the inflammation and the occurrence of exudation are marked by a subsidence of this general anguish; symptoms of local organic embarrassment being substituted for it, and the general constitutional symptoms being rather those of exhaustion and depression."—*D.*

"Aconite may be called for in the first stage of every acute inflammation; but remove from the mind the idea that it cures all inflammations; e. g., in the second stage of pneumonia it is good for nothing. How shall we know the stage that calls for Aconite in these acute inflammations? By the symptoms which are characteristic of Aconite; viz., the heat of surface, or external cold and internal heat; thirst; quick, excited but not hard pulse; copious sweat, with burning heat; and, above all, anguish and restlessness of mind and body, tossing which will not be quieted, foreboding and anticipation of death."—*D.*

Fear is one of the most prominent symptoms in the whole pathogenesis of Aconite. "Great fear and anxiety of mind, with great nervous excitability; afraid to go out, to go where there is any excitement or many people, or to cross a street. His life, in fact, is rendered miserable by this all-pervading fearfulness; even the countenance expresses this fear,"—*G.*

"Fear of death, predicts the day he will die; is alarmed, and sure he will die, although there is no occasion for it; great fear, during pregnancy, that the child will be deformed, or that she will die."—*G.*

"Moaning, anxious lamentations; reproaches from trifling causes; delirium, especially at night, raves, springs out of bed; in the morning excessive sweat."—*Hg.*

"Restlessness, agony, internal anxiety; does everything in great haste; must move about or change position often."—*Hg.*

"Music is unbearable, it makes her sad; has no affection for anybody, especially during pregnancy."—*Hg.*

"On arising from a recumbent posture, the red face becomes deathly pale, or he becomes dizzy and falls over; he fears to rise again; often accompanied by vanishing of sight or unconsciousness."—*Hg.*

"Aconite produces a well-marked vertigo, a sensation of swaying to and fro in the brain. This is increased by stooping, and by motion generally, especially by suddenly rising from a recumbent posture. Sometimes vision is obscured by it. In connection with these symptoms, a bursting headache, accelerated pulse and internal heat of the head, with at the same time perspiration of the head and thorax."—*D.*

"Burning headache, as if the brain was agitated by boiling; fullness and heavy feeling, as if everything would push out of the forehead; congestive headache; sun-stroke; as if the brain was moved or raised; worse during motion, drinking, talking, or in sunlight; congestion, anxiety; face hot and red, or pale; carotids pulsate strongly; pulse full, strong, or small and quick; worse toward evening; apoplexy."—*Hg.*

Headache as if everything would come out of the forehead, with vertigo on rising, with fainting and pale face.

"The headache is characteristic. Heaviness and pressure in the forehead as if there were a load pressing outward, as if it would all come out there; throbbing, with internal soreness and pressing outward. Its location is in the forehead and temples, involving the eyes and upper jaw. It is aggravated by motion, stooping, and noise, and relieved by repose. Head and face are hot, especially internally, and covered with hot perspiration."—*D.*

Scalp very sensitive to the touch; bends the head far back.

Eyes.—Acute conjunctivitis, or rheumatic ophthalmia; eyes excessively painful, feeling as if some foreign substance had lodged in them.

"Sensitive to light, especially of the sun; light dazzles the eyes; pupils contracted, then dilated; eyeballs feel too large."—*Hg.*

"In earlier stages of violent acute inflammations of the deep structures of the ball, when it becomes sensitive to touch and feels as if it were protruding; rarely after exudation."—*Hg.*

"Aconite is the remedy for inflammations which are very painful, with heat and burning, as well as dryness; inflammatory conditions resulting from irritant action of foreign bodies, as chips of steel, stone, or coal, in the cornea, which produce dry rubbing of the lid over the ball, with injected vessels; irritations caused by ingrowing lashes; catarrhal inflammation, first stage, prior to exudation; chemosis of conjunctiva, with pain so terrible that one wishes to die; in acute aggravations of granulated lids and pannus of the cornea, with excessive hyperæmia, heat, and dryness, especially if the aggravation be induced by overheating from violent exertion, or by exposure to dry, cold air; in true scleritis, acute stage, with contracted pupils, sticking or tearing pains, photophobia, a blue circle around the cornea, and violent aching in the balls (compare *Spigelia*)."—*A. and N.*

"Lids feel dry, burn, and are sensitive to the air; hard swollen, red, with tense feeling; worse mornings."—*Hg.*

Ears.—Most of the ear symptoms are indicative of cerebral disturbance, but some are idiopathic.

"Averse to noises; they startle him, and are intolerable; music goes through every limb, makes her sad; roaring, humming; ringing in the ears."—*Hah.*

Stinging in the ear; meatus red and narrowed, with violent earache. Use the tincture heated, and drop in the ear, as well as the dilutions internally.

Erysipelatous inflammation of the ears.

Nose.—"Sense of smell very acute, especially for unpleasant odors."—*Hg.*

Dry coryza, from sudden changes of temperature, with fever, thirst, and great restlessness; cannot breathe through the nose. Plethora, with nosebleed; blood bright red, with headache.

Face.—Anxious or frightened expression.

"Face burning, fiery red and bloated; feels as if it was too large."—*Hg.*

"Face pale, with restlessness and an expression of anxiety; face dark red in apoplexy."—*Hg.*

"Neuralgia of the trigeminus, left side; face red and hot; restlessness, anguish; rolling about, screaming."—*Hg.* [Tincture locally.]

Mouth.—Burning, tingling sensation, extending along the dorsum of the tongue, and along the fauces, down to the stomach, with tingling in the lips, tongue, fauces, fingers, and spine.

Everything tastes bitter, excepting water; or the mouth tastes foul, flat, and nauseous.

Tongue coated white, or thick yellow, with unquenchable thirst.

"Tongue red and dry, with great thirst; sensation of dryness and rawness in the middle of the tongue; tongue swollen."—*Hg.*

"Trembling and temporary stammering of the tongue."—*Hg.*

"Toothache, from cold, dry winds, especially in young, plethoric people, with throbbing in one side of the face; teeth sensitive to cold air; intense redness of the cheek, congestion of the head, and great restlessness."—*Hg.*

"Constantly moving the lower jaw, as in chewing; meningitis."—*Hg.*

Mouth and lips dry and burning, with much thirst.

Throat.—The symptoms of the throat, both objective and subjective, show inflammation of the mucous membrane of the

throat, tonsils, fauces, and pharynx. Rough and scraped sensation, with redness of the whole fauces.

"Acute inflammation of the throat (palate, tonsils, and fauces), with high fever, and dark redness of the parts; burning and stinging in the fauces; feeling as if a stick had stuck in the throat."—*Hg.*

No remedy is more valuable in all acute inflammations of the throat.

Appetite.—Unquenchable thirst, and frequently excessive hunger, in first stages of all local inflammations.

"Desires wine, brandy, beer, and bitter drinks; no appetite; loathing of food, qualmishness."—*Hg.*

Great thirst, and, though he can not retain fluids in the stomach, yet will always drink; then up it comes as from a pump, all up and out in a very short time, before a basin can be produced."—*G.*

Stomach.—The majority of the stomach symptoms are a result of derangement of other organs, especially cerebral disturbance.

Bitter, bilious vomiting, with anguish and cold perspiration.

"Vomiting of lumbrici; of bile; of green masses, with green stools; of mucus; of blood and mucus, with anxiety and great thirst; vomiting and purging of green water."—*Hg.*

"Sudden excruciating pain, with gagging, retching, vomiting of blood, gasping; cold sweat on the forehead; congestion of the mucous lining of the stomach; scarlatina; burning from stomach up to the mouth; pressure in pit of the stomach, as from a stone."—*Hg.*

"Heaviness in stomach and hypochondria; after repeated vomitings, there still remains a sensation as if a cold stone lay in the stomach."—*D.*

"Burning in the stomach and umbilical region, extending to the epigastrium, with throbbing; chills and fever."—*D.*

Inflammations brought on from ice-water, ice-cream, etc.

Hypochondria.—Acute inflammation of the liver, with burning, stinging pains; pressure and constriction in the liver, hypochondria tense and swollen, with oppressive breathing. Pain going from liver to stomach; stitches in the liver, and jaundice.

"Jaundice during pregnancy; after fright; from cold, with catarrh of the small intestines; acute hepatitis, with high fever."—*Hg.*

Inflammation of the spleen with inflammatory fever.

Abdomen.—Enteritis or peritonitis, with high fever; sharp, cutting pains in the whole abdomen, which is very tender to the touch; abdomen much swollen after scarlatina, with general anasarca. Use the tincture. It will cure most cases of dropsy after scarlatina, where the kidneys are involved.

"Abdomen burning hot, tense, tympanitic, sensitive to the least touch; cutting pains; fever and great anguish; meteorism, vomiting, inability to urinate; peritonitis."—*Hg.*

"Colic forces him double, yet relieved in no position; involving the intestines and bladder; constant desire to urinate."—*Hg.*

"Hernia, recent and small; incarcerated, with bilious vomiting, cold sweat; burning as from coals of fire."—*Hg.*

The mucous membranes of the intestine, peritoneum, and liver, are highly inflamed by Aconite,—as shown by post mortems.

Stool.—"Green, watery diarrhœa, like chopped spinach."—*G.*

"Bilious diarrhœa of infants, with colic which no position nor circumstance relieves."—*G.*

First stages of acute bowel diseases; stools watery, dark colored, slimy mucus; bloody, small, and frequent; after sudden cold changes of temperature; great thirst and fear of death.

Dysentery, with high, synochal fever; great fear and restlessness, accompanied with cutting, lancinating, burning, and tearing pains in the abdomen; stools of mucus and blood.

"Dysentery or inflammatory diarrhœa during hot days and cold nights; urging; slimy stools; intolerable nightly tingling and itching in the anus."—*Hg.*

Hæmorrhoids, with acute inflammation; excessively sensitive; or bleeding piles of bright red blood.

Hæmorrhage from the bowels, blood bright red.

Urinary Organs.—Well-marked irritation and inflammation of the mucous membrane of the urinary tract; urine red, scanty, or retention of urine, with great restlessness and anxiety from sudden changes from hot to cold.

"Retention of urine from cold, particularly in children, with much crying and restlessness."—*G.*

"Renal region sensitive, with shooting pains; violent burning in the bladder; inflammation of the bladder; constant urging, water passes in drops, with burning, mixed with blood; heat and tenderness over the pubes; painful, anxious urging to urinate; burning in the urethra when urinating; children put their hands to the genitals and cry out."—*Hg.*

"Hæmaturia, with hæmorrhoids of the bladder."—*Hg.*

Sexual Organs, Male.—In all acute inflammations, especially the first stage of gonorrhœa, we have no drug that will equal Aconite. I use the tincture in water locally, and give the tincture of the root in from one to three drop doses every two hours.

In acute orchitis; high fever, with tearing or bruised pains in the testicles; from cold or gonorrhœa. (Internally and locally.)

"Increased sexual desire; lascivious dreams; or sexual desire lessened; parts relaxed; tingling, etc."—*Hg.*

Sexual Organs, Female.—Suppression of the menses, from fright, or cold. Ovaritis from sudden check of the menstrual flow, or cold.

"Menses too late, diminished and protracted; menses suppressed from wet feet or cold bath; restores the menses of plethoric women when checked from any cause."—*Hg.*

In plethoric women, profuse catamenia; uterine hemorrhage very active; fear of death, and great restlessness.

Amenorrhœa in plethoric females; nosebleed, with palpitations of the heart. Inflammation of the genitals; vagina dry and hot and sensitive. Prolapsus of the uterus, with acute inflammations and great anxiety; labor-like pressing-down in the uterus; dysmenorrhœa.

Pregnancy.—Great restlessness and fear of death during labor, is sure she will die; tedious, difficult labor; vagina hot and dry, and the os uteri tender and undilatable.

"Violent labor-pains, in rapid succession; contractions insufficient; red, sweating face, and great thirst."—*Hg.*

After-pains very severe; last too long, with great restlessness. Milk fever; mammæ hot, hard, tense, with scanty milk; fever, with delirium and great anxiety.

"Childbed fever, after suppression of lochia, mammæ lax, no milk; dry, hot skin; hard, frequent pulse, or tensive, contracted; fearful; wild, staring, glittering eyes; dry tongue, great thirst; inflated abdomen, sensitive to the slightest touch."—*Hg.* [Locally and internally.]

Puerperal convulsions, from fright; great cerebral excitement; hot, dry skin, thirst, restlessness, and fear of death.

Acute puerperal peritonitis. (Locally and internally.)

Respiratory Organs.—Croup, brought on by sudden change of temperature from warm to intensely cold weather.

"First stage of croup, with dry, hoarse cough and loud breathing during expiration, but not during inspiration; every expiration ends with a hoarse, hacking cough; croupy cough, waking

in first sleep, particularly with children, after dry, cold west winds."—*G.*

"Short, dry, titillating cough, every inspiration seems to increase the cough; child grasps at his throat after every coughing fit."—*G.*

In sanguine, plethoric temperaments, where the primary or inflammatory stage is not passed if there is high fever present. It suits a loose as well as a dry cough, but, as a rule, will be found to act best where there is a *dry cough, aggravated at night*. In dry bronchial catarrh, in its most obstinate form, Aconite is the most reliable agent we have, where there are long fits of dry morning and evening cough, so trying to the patient, from their every-day recurrence.

"Where the left lung is most involved, and the pleura is at the same time implicated, manifested by a sharp, stitching pain on breathing, and the cough, which would be very hard were it not suppressed on account of the pain, is almost dry, it being extremely difficult to raise anything. The little that is brought up is *tenacious*, falling in a round lump, and of a dark cherry-red color. Aconite 30th is assuredly the remedy."—*Dr. C. Pearson.*

"Pleurisy and pneumonia, with great heat, much thirst, dry cough, and great nervous excitability; quick, anxious, labored, sobbing; stitches through the chest and side, especially when breathing and coughing."—*Lippe*

"Laryngitis, larynx sensitive to touch and to inspired air, as if denuded, with inflammatory fever, and sometimes suffocative spasms of the glottis."—*Hg.*

"Cough, clear, ringing or whistling; short, dry, loud, forcible, spasmodic, or suffocating, with rust-colored expectoration."—*Hg.*

"Stitches in the chest hindering respiration; can not breathe freely, in consequence of a sensation as if the lungs would not expand; the child has much oppression of the chest, anxiety, can scarcely cough, the suffering is so intense."—*G.*

"Asthma from active hyperæmia of the lungs and brain; face red, eyes staring; feeling of a band round the chest; muscles of the chest are rigid; agony, sits up in bed, can hardly breathe; pulse like a thread; vomituration; urine scanty, dark; sweat with anxiety; after the paroxysm, has white, yellow, or blood-streaked sputa."—*Hg.*

Hæmoptysis; the blood comes up with great ease by hemming and hawking, of a bright red color, and in large quantities; from exercise or cold, dry west wind; with great fear and anxiety of mind, and palpitation of the heart.

"Expectoration of bloody mucus, with cough. There is almost always a tingling sensation in the chest after coughing. There may be stitches in the chest and side, which are often so severe as to interfere considerably with respiration; can only get half-inch respirations."—*G.*

Burning in the lungs from inflammation of the bronchial mucous membrane. In pneumonia and pleurisy, compelled to lie on the back.

Heart.—Great anguish and palpitation of the heart; pulse hard, strong, and full, in inflammations, with great thirst.

"Anxiety about the præcordia; heart-beats quick, strong, and powerful; or like a thread, weak, quick, hard, and small, with great fear of death."—*Hg.*

Apoplexy with hard, full pulse; carotids beat violently. In peritonitis, the pulse is quick, hard, and small. In meningitis, strong, full, rapid pulse. Angina pectoris, feeble pulse, cold sweat, and great fear of death. Pericarditis, pulse hard, strong, and contracted. Rheumatism, heart greatly agitated, etc.

Fever.—Synochal fever, with full, bounding pulse, great heat, restlessness, unquenchable thirst for large quantities of water, with great nervous excitability; great heat, and agony; craves a large amount of cold drink.

"Chill, skin cool, cold to the touch; ascends from the feet to the chest; formication between the shoulders and down the back; finger-tips cold, nails blue, worse in a warm room; cold chills, with rigors and goose-flesh; worse at rest, relieved by motion."—*Hg.*

"Alternate heat and chill at night; restless, wants to uncover, yet chilly therefrom; face hot, hands and feet cold."—*Hg.*

"Dry, burning heat; fever unbearable toward evening and after getting into bed; great thirst; hard, full, frequent pulse; anxious, impatient; beside himself, tossing about with agony."—*Hg.*

"Inflammatory fevers and inflammations, with much heat; dry, burning skin; violent thirst; shortness of breath, and great nervous anxiety."—*Hg.*

Copious, profuse, free sweat; the covered and affected parts perspire copiously; worse while sweating, but better afterward; profuse sweats generally relieve, especially so in rheumatism; can not bear to be covered.

"Bad effects of suppressed sweat; catarrhs; fevers; local inflammations, etc."—*Hg.*

WASSEL

Skin.—Acute erysipelas, with synochal fever; skin red, hot, and swollen, with much pain; anxiety, and great restlessness.

Scarlet rash, with fine, red eruption; high fever; great restlessness and anxiety; nausea and vomiting. Especially suited to the first stage, before the eruption appears, but is my leading remedy throughout the disease, unless the throat symptoms are very severe, calling for Belladonna or Rhus tox. No drug can equal Aconite for the dropsy following, with renal congestion and great anasarca; but it must be given in the tincture.

Skin dry, hot, with fine prickings, as from needles; all degrees of incomplete anæsthesia.

Measles, red miliary eruption; dry, barking cough; eyes red, can not bear the light; painful hoarseness; restless moaning and lamenting; tongue red; fever extremely high.

Jaundice, especially during pregnancy.

Neck and Back.—Painful stiff neck, with tearing pains, worse from motion; pains down the neck to the right shoulder."—*Hg.*

"Crawling in the spine, as from beetles; formication; high fever; numbness of the small of the back, extending into the lower limbs. Spinal meningitis."—*Hg.*

"Pain in small of the back, especially at the last lumbar vertebra, as if beaten; spasms from inflammation of the spine."—*Hg.*

Arms.—Much numb, tingling sensation in the back and in the fingers, from irritation of the sentient nerves.

"Numbness of the left arm, can hardly move the hand."—*G.*

"Arms hang powerless, as if paralyzed by blows; meningitis. Paralysis of the wrists; creeping pains in the fingers; hot palms; hands icy cold; cold, sweaty palms."—*Hg.*

"Painful sensitiveness of any part of the body; does not wish to be touched, on account of this sensitiveness; of course, he will be irritable, and fearful of any one approaching him."—*G.*

Lower Limbs.—"This remedy is frequently indicated when there is a great and sudden sinking of the strength; but here we must look to the mind. If we find cheerfulness and content, with no alarm, Aconite is not the remedy; but, if we find great alarm at this sudden sinking, study Aconite."—*G.*

"Hip and hip-joint (left) swollen, hot, and exceedingly painful to touch; fear, great thirst; anxious; acute rheumatism."—*Hg.*

"Legs feel powerless; tired; shooting, tearing pains in legs, knees, ankles, and toes; knees swollen; painful, throbbing, cutting pains, can not sleep; acute rheumatism."—*Hg.*

"Legs stiff after taking cold; legs and feet numb; tingling, go to sleep while walking."—*Hg.*

"Coldness of the feet and ankles; toes cold and sweaty."—*Hg.*

Of great value in rheumatic inflammation of the joints; the parts are swollen, bright red, and shining; sensitive to the least contact; high fever; worse evening and at night. Also for muscular rheumatism, convulsions of children, especially when teething; child bites at his fist; frets constantly; anxious, and worse at night. Aconite is of great value in neuralgia, with congestions, especially if caused by cold, dry west winds, or checked perspiration. Used both locally and internally.

To enumerate the diseases for which Aconite is suitable would be to mention the acute inflammations of every possible tissue and organ in the body; but the inflammations to which it is particularly suitable are those of all the serous membranes, the mucous membranes, muscular substance, joints, tendons, and ligaments. In all active hemorrhages. In acute neuralgias, with active congestion. In acute rheumatism and all exanthematous fevers.

Aggravation.—In the evening and night the pains are insupportable; in a warm room; from motion; when arising in bed; from tobacco smoke; can not lie on the left side in chest affections, nor take deep inspirations.

Amelioration.—During the day; in the open air; after perspiration; rheumatism during rest; washing in cold water; and from acids, wine, and coffee.

ÆSCULUS HIPPOCASTANUM.

Horse Chestnut.

Habitat: Europe, Asia, America, etc. Tincture of the ripe, fresh nut, Class III.

Through the cerebro-spinal system, Æsculus has one special center of action:

I. COLON, RECTUM, AND ANUS. *Congestion, Hæmorrhoids.*

Colon and Rectum.—Through the lower spinal column, Æsculus produces portal congestion, which reacts upon the colon and rectum, producing catarrhal inflammation; the parts are dry and swollen. The hæmorrhoidal vessels become intensely congested,

the rectum and anus violently inflamed, producing piles in their most aggravated form.

The filaments of the motor nerves that emanate from the lower portion of the spinal cord, and are distributed to the mucous membrane of the colon and rectum, have their functions paralyzed so as to entirely suspend the secretions of the mucous follicles, producing constipation and white-colored stools.

Therapeutic Individuality.

Especially adapted to people subject to hæmorrhoids from portal congestion.

Constant severe aching pain in the sacro-lumbar region, as if the back would break; from hæmorrhoids and spinal exhaustion.

Large hæmorrhoids that quite block up the rectum, not inclined to bleed, but especially painful; excessive dryness of the rectum and anus, with a feeling as if it had been filled with sticks.

"Dreadful pain in the anus; could not sit, stand, or lie down. The pain was like a knife sawing backward and forward; almost martyrdom for agony."—*Hughes*.

Hæmorrhoidal tumors protrude from the rectum; are of a blue, purple color, with sharp, shooting, cutting, burning pains; accompanied by great aching in the sacral region. Use the cerate locally, and the 2d dil. internally. Stools constipated, or soft and papescent.

Prolapsus ani, with constipation; stools hard and knotted, with great backache.

It is said to act well in jaundice. Dr. Hart says: "Throbbing in the abdominal and pelvic cavities, is an especial key for this remedy, in intra-abdominal and pelvic congestions."

"Leucorrhœa, with lameness in the back, across the sacro-iliac articulations, with great pain and fatigue from walking."—*G.*

Urine dark, muddy, high colored, or yellow, with mucus; hot and scalding.

Legs so weak can hardly walk; paralysis of arms and legs from spinal exhaustion. Has cured intermittent fever.

Aggravation.—From walking; from movement of bowels.

Amelioration.—From rest.

ALOES.**Socotrine Aloes.**

Habitat: Africa, Asia, etc. Tincture according to Class IV., and Triturations.

Antidotes.—Vegetable acids.

Through the abdominal sympathetic, Aloes have three special centers of action :

- I. LIVER. *Portal Congestion and Increased Biliary Secretion.*
- II. LARGE INTESTINES. (MUSCULAR COAT.) *Increased Peristalsis.*
- III. SKIN. *Producing Eczema.*

Liver.—Aloes produce portal congestion, and greatly increase the biliary secretion. The recent experiments of Rutherford have shown Aloes to be possessed of undoubted cholagogue properties. Bile, when applied to the muscular coat of the intestine, not only excites the secretions, but greatly increases the muscular contractions ; hence its cathartic action.

Large Intestines.—This remedy has a specific action upon the muscular portion of the large intestine ; whether from the action of bile upon it, or from nervous influence derived from the hypogastric plexus, it is hard to say ; but it is, probably, from both, the nervous centers being excited first, and, through them, the peristaltic actions, and the secretions are increased. Dr. Ringer says : “It is chiefly employed as a purgative. Its action is slow ; and six, twelve, or even twenty-four hours may elapse before it operates. It produces bulky motions, a little softened, but not watery. It evidently acts but little on the mucous membrane of the intestines, and is merely a fæcal evacuent.”

It also acts powerfully upon the rectum, producing severe congestion ; hæmorrhoids, and tenesmus. And this congestion of the rectum, through sympathy, extends to all the pelvic viscera ; the menstrual function becomes more abundant ; and abortion may be produced with large doses. In the male, frequent erections. As a purgative, its action is slow, ten to twenty grains acting in from six to twelve hours.

Skin.—Here Aloes have a slight action, producing eczema ; and, on the scalp, the hair turns gray and falls out in spots.

Therapeutic Individuality.

Morning diarrhœa ; stools yellow, watery, jelly-like, or windy, accompanied by intense griping pains across the lower abdomen, with tenesmus during stool ; followed by extreme prostration. Eating causes a great desire for stool.

Watery stools, the desire for which can not be put off for one moment, with much flatulence ; severe colic, and gurgling noise in the bowels ; constant sense of insecurity of the sphincter ani ; the rectum feels full of fluid, feeling as if it would fall out, with great faintness during and after each stool.

"Morning diarrhœa, every summer for ten years while dressing she is seized with colic in the umbilical region ; nausea, chilliness, followed by a sudden and irresistible desire for stool ; can hardly get to the water-closet, before a dark, almost black, offensive and liquid stool passes off ; usually the nausea and colic are not wholly relieved until the second stool. Aloes 3x cured in two days."—*Dr. W. S. Searle.*

"Dysentery, stools frequent and extremely painful, with burning tenesmus at the extremity of the rectum."—*Dr. A. E. Small.*

Hæmorrhoidal congestions ; the hæmorrhoids bleed often and profusely ; protrude like grapes, with much tenesmus.

"Fistula in ano ; it has never disappointed me."—*Dr. Boyd.*

"Jaundice of an atonic kind, a bilious state, with a coated tongue ; foul breath ; tumid abdomen and constipation."—*Bartholow.*

Extreme prostration, with perspiration.

Aloes greatly resemble Sulphur, in chronic abdominal plethora, especially in weak, phlegmatic people.

Sexual Organs, Female.—Menses too early, last too long, and too profuse, with fullness and heaviness in the region of the uterus, and pressing-down in the rectum.

"Experience has shown that this drug is among the most efficient agents for exciting the uterine vessels, and directing the afflux of blood to them, and deserves to be counted the best remedy we possess against those protracted, exhausting, and obstinate hæmorrhages from the uterus, which occur in females of nervous, relaxed, and phlegmatic habits, at the critical period."—*Dr. Eberle.*

"Leucorrhœa of mucus and blood, with prolapsus uteri and much backache."—*Hg.*

Urinary Organs.—"Frequent urging to urinate ; dark-colored ; burning, and, every time he urinates, feeling as if he must have a thin stool."—*Hg.*

"Incontinence of urine, in old men with enlarged prostate gland."—*Hg.*

Head.—Dull, heavy headache, with biliousness.

"A peculiar, heavy, dull, pressing pain in the forehead, of no great severity, but which indisposes to, or even incapacitates for, all exertion, especially for intellectual labor."—*Dr. P. P. Wells.*

"Falling-out of the hair."—*Dr. Teste.*

"Headaches are worse from heat, and better from cold applications."—*Hg.*

"Life is a burden; she knew she would die in a week."—*Hg.*

"An easily excited, angry, revengeful state of mind; must destroy the object of wrath; repels every one."—*Hg.*

Aggravation.—Mornings; evenings; sedentary habits, and in hot, damp weather.

Amelioration.—From cold; cold water on head, from the discharge of flatus.

ALUMINA.

Aluminum.

Habitat, Europe. Mineral. Triturations.

Through the cerebro-spinal nervous system, Alumina has two special centers of action:

- I. MUCOUS MEMBRANES. *Great Dryness of the Secretions.*
- II. CEREBRO-SPINAL NERVOUS SYSTEM. *Profound Prostration.*

Mucous Membranes.—Alumina, through the spinal nerves, especially acts upon the colon and rectum, producing great dryness of their secretions, and obstinate constipation. It also acts similarly upon the mucous membranes of the uterus and vagina, producing congestion, with dryness, followed by copious leucorrhœa.

Cerebro-Spinal System.—Alumina produces most profound prostration of the animal nervous system; and, at the menstrual period, the woman is so prostrated that she can hardly speak.

Therapeutic Individuality.

"Thinks his mind is some one else's; groans at night, and says it is not he, and wants them to stop."—*G.*

"As soon as she sees blood or a knife, wants to kill herself."—*Dr. Douglas.*

"Stupid, thinks he is falling forward."—*J. S. Douglas, M. D.*

"Great weakness, loss of memory; melancholia; time passes too slowly, an hour seems half a day."—*Hg.*

Can not walk with the eyes closed, without falling.

Headache from chronic catarrh, with constipation.

"Semi-lateral affections of the head; old rheumatic affections, always appearing on the same side."—*G.*

"Excessive dryness of the scalp; it goes to sleep; feels light, and the hair falls out."—*Dr. Douglas.*

Ears.—Affections of the external ear; purulent otorrhœa.

Eyes.—"Eyes inflamed; itching; agglutination at night; lachrymation by day; burning and dryness, smarting, but little ulceration; yellow halo around the candle."—*Hg.*

"Dim-sightedness, like looking through a fog, or as if feathers were before the eyes; must rub them; fiery spots."—*Hg.*

Great burning and dryness of the lids; lids granulated, and semi-paralyzed.

Nose.—Acrid secretions from the nose, from chronic catarrh.

"Catarrhs of long standing in old people; nostrils sore; discharge of thick, yellow mucus; or discharge of dry, hard, yellow-green mucus from nose; nose swollen and very sore."—*Hg.*

Inflammation and ulceration of the septum narium.

"Skin of face tense, as if the white of an egg had been dried over it."—*Hah.*

Digestive Organs.—"Tongue coated with a slimy fur."—*Hg.*

"Swelling and bleeding of the gums; teeth feel loose, elongated, with drawing toothache."—*Hah.*

"Small ulcers in the mouth; saliva increased, but the mouth seems dry."—*Hg.*

"In the evening, dryness of the throat, which induces frequent clearing of the throat; throat red and inflamed."—*Hah.*

"Great dryness of the throat; voice husky; constant hawking, and sensation as of a lump in the throat; chronic catarrh."—*Hg.*

"Swallowing painful, as if the œsophagus were contracted."—*Hg.*

Loss of appetite; aversion to meat; potatoes aggravate.

"Appetite for starch, chalk, clean white rags, charcoal, cloves, acids, and other indigestible things."—*Hg.*

Liver pains, as if bruised.

Has great difficulty in voiding even a soft stool, from paralysis of the bowels, great straining required to void the stool: perfect inactivity of the rectum.

Constipation from great dryness of the mucous membrane of the rectum, with long-lasting pain in the anus.

"Stools hard and knotty, or covered with mucus; like sheep's dung, with cutting in the anus; followed by blood like pipe-stems."—*Hg.*

Sour, acid diarrhœa; in children stools are green.

"Diarrhœa whenever she urinates."—*Hg.*

"Severe hemorrhage from the bowels, in typhoid."—*Hg.*

Blind piles; rectum constricted as if dried up; fistula ani very sensitive.

Urinary Organs.—High-colored urine, voided while straining at stool. Very characteristic.

"She can not pass her urine without straining at stool; she has to strain at stool to pass her urine."—*G.*

Sexual Organs, Male.—Induration of the testicles after gonorrhœa.

"Excessive sexual desire; or lessened desire, with involuntary emissions; and great weakness of the bladder and genitals."—*Hg.*

Sexual Organs, Female.—Profuse acrid leucorrhœa, with great debility, aggravated by walking.

"Profuse, transparent, acrid leucorrhœa, running down to the heels in large quantities; or, profuse, transparent leucorrhœa only in the day-time."—*G.*

"Abundant discharge of mucus before the menses, which are delayed, scanty, and pale; after the menses she is so weak in body and mind, that a little exercise prostrates her."—*G.* [This prostration after menstruation is very characteristic.]

"During menstruation, corroding urine is frequently passed day and night."—*G.*

"Bearing-down pains, as though everything would fall through the vagina."—*Dr. J. S. Douglas.*

"Stitches in the left side of the vulva, extending up as far as the chest, with throbbing pains in the vagina."—*G.*

Obstinate constipation during pregnancy, with gastric symptoms.

Respiratory Organs.—"Voice hoarse, rough, hollow, almost gone; cough dry, hacking, with frequent sneezing."—*Hg.*

Hard, dry cough, at night, with involuntary emissions of urine from coughing. (*Conium.*)

"Tearing cough, every turn of cough being accompanied by involuntary emissions of urine, which reduces the patient to despair."—*G.*

Chronic cough; copious mucous expectoration; old people.

Back.—"Pain in the back as if a hot iron were thrust down the lower vertebræ."—*Lippe.*

"Violent stitches in the middle of the back."—*Hg.*

Limbs.—"Arms and legs feel heavy; drawing pains in the limbs as if the bones were squeezed narrower."—*Hg.*

"Great heaviness of the lower limbs; can scarcely drag them; staggers when walking, and has to sit down."—*Hah.*

"Rheumatic and traumatic paralysis."—*Dr. Lobethal.*

"Frequent cramps in the calves; trembling of the knees; numbness and pain in the heel, and sole of the foot feels swollen."—*Hg.*

Chronic diseases in dry, thin subjects, who become exhausted from slight exercise, or talking; become faint and must sit down.

Skin.—"Intolerable itching of whole body, especially when getting warm in bed; scratches until the skin bleeds."—*Hg.*

Dry, tettery, itching eruption, on arms, hands, and head, in old, withered-up people; both dry and moist eruptions.

Chronic jaundice, with formication of the skin.

Aggravation.—In warm room; evenings; alternate days; during rest; and new and full moon.

Amelioration.—In open air; from cold washing; during the night, and from motion.

AMBRA GRISEA.

Gray Amber.

Habitat: Found floating on the Southern Seas. Marine Animal Substance. Trituration.

Antidotes.—Camph., Nux vom., and Puls.

Through the cerebro-spinal system, Ambra has one special center of action:

I. ANIMAL NERVOUS SYSTEM. *Hysterical Hyperæsthesia.*

Cerebro-Spinal Nervous System.—Through the posterior spinal cord, Ambra produces a state in females greatly resembling hysteria; and it is a special nervine in the old school.

Therapeutic Individuality.

Especially adapted to excessively hysterical women, that are lean and delicate, with frequent fainting fits.

"Memory impaired; distorted images, grimaces; diabolical faces crowd upon her fancy; melancholy, sits for days weeping, with great weakness, and constipation."—*Hg.*

"Great weakness in the head, with vertigo, must lie down; can not sleep, must get up; feels in a hurry."—*Hg.*

Body cold, and can not sleep, with stretching of the limbs.

Scalp is hot, dry, and the hair falls out.

Nervous deafness, with cold sensation in the abdomen.

"Copious nosebleed early in the morning."—*Hg.*

Digestive Organs.—Spasmodic choking. "Choking and vomiting can hardly be avoided when hawking up phlegm from the fauces."—*Rae.*

Empty or sour eructations; violent spasmodic hiccough, aggravated by warm drinks, in hysterical females.

"Pain in the hypochondriac region, with great coldness of the abdomen."—*Hg.*

Constipation, with much depression of mind.

Urinary Organs.—Urine copious and watery; excessive urination in hysterical, nervous people.

"Sour-smelling urine."—*Hg.*

Sexual Organs, Male.—Coition produces asthma in men.

Sexual Organs, Female.—Too frequent and too profuse menstruation, with neuroses of the vulva.

"Discharge of blood between the periods, at every little accident, as after a hard stool, or a little longer walk than usual."—*G.*

Extremely nervous, hysterical females, subject to nightly leucorrhœa of bluish-white mucus.

"Stitches in the ovarian region, when drawing in the abdomen, or pressing upon it, with great languor."—*G.*

The vulva is much swollen and very sore; itching greatly; urination causes great smarting, wants to rub the vulva constantly.

Respiratory Organs.—Nervous hysterical cough, and asthma, with globus and copious urination.

"Spasmodic cough in elderly, emaciated people, with abundant eructations accompanying the cough."—*D.*

Excessive dry, nervous, spasmodic cough, worse at night.

"Asthma of old people and children."—*Hg.*

Chest feels stuffed up, with violent palpitation of the heart, and difficulty in breathing.

Limbs.—Hysterical spasms; muscular twitching; great languor; with frequent fainting fits; arms and limbs go to sleep easily; skin feels numb as if asleep.

Aggravation.—Evenings and mornings; warm room; warm drinks; music; talking and lying down.

Amelioration.—From cold air; cold food and drinks, and walking.

AMMONIUM CARBONICUM.

Carbonate of Ammonia.

Chemical Preparation. Trituration and Aqueous solution.

Antidotes.—Camph., Lach., Hep. s., Arn., Vegetable acids.

Through the spinal nervous system, Ammonium has three special centers of action :

- I. MUCOUS MEMBRANES. *Inflammation, with Mucorrhœa.*
- II. CIRCULATION. *Heart and Arterioles Stimulated.*
- III. BLOOD. *Liquefaction and Vast Hemorrhages.*

Mucous Membranes.—Ammonia has a specific action upon the mucous membrane of the gastro-intestinal canal and respiratory organs. Toxic doses produce nausea, vomiting, gastro-enteritis, stools of mucus and blood. There is œdema of the glottis; congestion and inflammation of the bronchial mucous membrane; convulsions and death.

When Ammonia is "inhaled, an overpowering sense of suffocation is experienced, and the glottis spasmodically closes. Prolonged contact with the air-passages excites violent inflammation. When a solution of Ammonia is swallowed, an active and destructive inflammation of the mucous membrane is set up; the lips, tongue, soft palate, and tonsils are swollen, red, and glazed; the epiglottis, and especially the aryteno-epiglottidean folds, becomes œdematous, and sudden death may ensue from œdema of the glottis. Inflammation of the œsophagus and stomach, with

stenosis, has followed from poisoning with this irritant."—*Bartholow*.

Ammonia is an intense direct stimulant to the respiratory centers in the medulla oblongata.

Circulation.—Ammonia is a powerful but fugacious stimulant of the heart and arteries. "The increased arterial tension which follows the exhibition of Ammonia must be due to an action either upon the heart itself, or upon the peripheral vaso-motor nerve fibers or upon the muscular fibers in the coats of the arterioles [probably the latter]."—*H. C. Wood*.

Blood.—Ammonia has a marked hæmatic action; the red blood-corpuscles are so altered as to prevent coagulation, and copious hemorrhages are the result. After death, it is dark, and contains but little oxygen, nor will it absorb the gas and become arterialized when agitated in an atmosphere of pure oxygen.

Therapeutic Individuality.

Especially adapted to sub-acute and chronic diseases of the mucous tissues, particularly of the air-passages, in lymphatic people with lax fiber.

"Listlessness and lethargy; utter dejection of mind."—*Hg.*

"Oppressive fullness, as if the forehead would burst."—*Hg.*

Great congestion of blood to the head, as if it would burst; worse at night, with sparks before the eyes, and vertigo.

Nose.—Vast hemorrhages from the nose, with great pain in the forehead.

"When stooping, blood rushes to the tip of the nose."—*Hg.*

"Dry, coryza, especially at night, must breathe through the mouth, with long-lasting coryza; burning water runs from the nose."—*Hg.*

Much heat in the face during mental exertion.

Mouth and Throat.—Sour or metallic taste.

Fine, stinging pains in the teeth, worse at night.

Inflammation of the buccal mucous membrane, with profuse flow of saliva.

Tonsils enlarged and inflamed.

"Putrid sore throat; tendency to gangrenous ulceration in scarlatina."—*Hg.*

"Diphtheria, when the nose is stopped up; child starts from sleep, can not get his breath; throat and œsophagus burn."—*Hg.*

Malignant diphtheria, involving the throat and air passages, with copious hemorrhages from the nose, and much prostration.

"Great hunger, but satiated by eating a little."—*Nenning*.

"Great pressure in stomach after eating, or at night; water-brash."—*Hg*.

"Great deal of empty eructations."—*Hah*.

"Burning pains in the liver; splenic affections."—*Hg*.

"Colic, with pain between the scapulæ."—*G*.

Stool.—"Cholera-like symptoms at the commencement of menstruation."—*Dr. Helbig*.

"Loose stool, preceded and followed by cutting pains in the abdomen; discharge of blood during and after stool."—*Hah*.

Vast hemorrhages from the bowels in low typhoids.

"Constipation, with hæmorrhoids."—*Hg*.

Urmay Organs.—"Violent tenesmus of the bladder."—*Hah*.

"Involuntary emissions of urine during sleep."—*Hah*.

High-colored urine; or copious pale urine.

Sexual Organs, Female.—"Women who are always delicate and must have their smelling-bottle continually at hand. This remedy is particularly suited to such."—*G*.

Menses premature and abundant, composed of clots.

"Diarrhœa and vomiting during menstruation."—*Lippe*.

"The menstrual blood is acrid, excoriating the thighs; the vulva is much swollen, burns and itches much."—*Hg*.

"At every menstrual period, stools of blood."—*G*.

"Acrid, profuse, and watery leucorrhœa."—*Hg*.

Extreme debility during menstruation, she must lie down.

"During pregnancy, albuminuria; yellow spots before the eyes; right mamma painful to touch."—*Hg*.

Air-Passages.—Dyspnœa from retrocession of an eruption.

"Excessive cough, excited by a sensation as of down in the larynx, 3 to 4 a. m."—*Hughes*.

"Cough short, asthmatic, from irritation in larynx, with painful sensation of spasmodic contraction of the chest."—*Hg*.

"Dry cough, especially at night, as from dust in the throat."—*Nenning*.

"Oppression of breathing; heaviness on the chest."—*Hah*.

"Sputa thin, foamy; adynamic, stale; rattling of large bubbles in the chest; bronchitis in the aged."—*Hg*.

"Hydrothorax, with burning in the chest; vehement palpitation of the heart; great præcordial distress; asthmatic breathing, and syncope, after motion."—*Hg*.

"Angina pectoris."—*Hg.*

Back.—Right side of body more affected than the left.

"Amenorrhœa with violent pains in small of back."—*Hg.*

Much chilliness in the evening.

Extremities.—Great heaviness of the arms, without strength, they are swollen and œdematous.

"Spasms in the arms, drawing them backward."—*Hah.*

"Whitlow, finger inflamed, deep-seated periosteal pain; fingers go to sleep."—*Hg.*

"Can not walk erect, on account of pain in the groins."—*Hah.*

Great weakness in the legs in low hæmatic fevers.

"Pain in all the limbs at night; burning of the hands and feet."—*Hg.*

"Big toe is red, swollen, and painful, particularly nights."—*Hg.*

Especially suited to scurvy and spanæmic diseases, with great debility; malignant scarlet fever, with great putridity.

Children dislike to be washed, especially the fat ones.

Emaciation; legs powerless and cold.

Aggravation.—Evening, night, and wet weather.

Amelioration.—Forenoon, dry weather, and warmth.

AMYL NITRITUM.

Nitrite of Amyl.

Chemical preparation. Alcoholic attenuations.

Antidotes.—Glon., Atrop., Acon., Coffee, Gelsemium, and Camphor.

Through the cerebro-spinal, especially vaso-motor portion, Amyl has six centers of action :

- I. CIRCULATION. *Rapid but Transient Arterial Dilatation.*
- II. HEART. *Inhibitory Nerve Centers Paralyzed; Violent Action.*
- III. TEMPERATURE. *Remarkable Reduction.*
- IV. CEREBRO-SPINAL SYSTEM. *Motor Nerve Centers Paralyzed.*
- V. KIDNEYS. *Diuresis, with Glycosuria.*
- VI. LOCALLY. *Progressive Loss of Function.*

Circulation.—Through the end organs of the vaso-motor system, Amyl produces rapid but transient dilatation of the arterial blood-vessels. The vaso-motor nerves, which are a part of the

great sympathetic system, supply the muscular coat of the arteries, and thereby regulate the contraction and dilatation of these tubes, and so determine the amount of blood which shall pass through them. Amyl paralyzes the sympathetic ganglia, thereby producing the flushings and perspiration so characteristic of this drug.

"It has been found by all observers, that, although the pulse is very much increased in frequency, sometimes from the very beginning, the arterial pressure is diminished, and, finally, is reduced almost to zero, and that the fall of pressure occurs equally as well after section of the vagi as at other times. As the number of heart-beats in the uninjured animal is increased rather than diminished, while the strength of the individual beat is not perceptibly lessened, it is evident, that, at least in the early stages of the poisoning, the diminution of the arterial tension is not cardiac in origin, but must be *due to dilatation of the capillaries*. This condition is confirmed by an experiment of Brunton, who found, that, if the descending aorta was tied high up, no perceptible fall of pressure was produced by the inhalation of the Amyl until very late in the poisoning, when the heart itself was acted upon by the drug; also by the fact noted by Dr. Amesz-Droz, that the arterioles, but not the veins of the rabbit's ear and of the frog's web, can be seen to dilate when the salt is inhaled. That dilatation of the vessels takes place in man, as well as in the lower animals, is shown by the flushings of the face, as well as by the enlargement of the retinal vessels.

"An interesting question which here arises is whether the dilatation is centric, due to an action on the vaso-motor nerve centers, or peripheric, due to a direct action upon the muscular coat of the arteries. I believe it must be peripheral, and not centric, in its origin; since, both in my own experiments and in those of Brunton, it occurred after the arterioles had been separated from the vaso-motor centers by division of the cord. This fact appears to prove that the fall of arterial pressure is due to a direct paralyzing action of the drug upon the coats of the arterioles,—a conclusion confirmed by our knowledge of the local action of the Nitrite upon the muscular tissue.

"Bernheim, however, asserts that this can not be so, and that the dilatation must be solely due to an action upon the vaso-motor centers; because he found that galvanization of the cervical sympathetic still caused contractions in the vessels of the ear of the rabbit, to which Nitrite of Amyl had been given. As pointed out by Pick, Bernheim's experiment does not warrant his conclusion. It only shows that the muscle fibers in the walls of

the vessels are not so completely paralyzed as to be unable to respond to very powerful stimuli. Dr. W. Filehne dissents from the view here taken; but it seems to me that the fall of arterial pressure after paralysis by section of the vaso-motor nerves, absolutely proves that the drug acts locally upon the arterial coats.

"It is, however, very probable from the general sedative effect of the drug upon the motor centers, that it acts also upon the vaso-motor centers; and, when the local flushings caused by small doses of the poison are borne in mind, this probability is greatly enhanced. Filehne affirms, that, when to two animals, whose lungs were exposed, inhalations of the Nitrite were given, the change of color was not nearly so great as in the ears, and that, when the sympathetic had been destroyed in the neck in a rabbit, and the Amyl exhibited, the vessels on the unwounded side actually became larger than those of the opposite ear. The answer of these results is, that opening the chest must derange most profoundly the pneumonic circulation, and that all observations upon the comparative size of vessels are very apt to be mere guess-work when the change is slight. Moreover, in Schuller's experiments, after destruction of the cervical sympathetic in a rabbit, inhalations of the Nitrite produced still further dilatation of the capillaries of the ear.

It seems to me established that it does act locally on the coats of the arterioles, although it may at the same time influence the vaso-motor centers. [It is the specific affinity the Amyl has for the vaso-motor nerve-endings, and not its local action, that produces paralysis of the arterioles.] In the latter stages of the poisoning, another factor enters into the causes of lessened blood-pressure, the heart-force itself becoming largely extinguished by a direct action of the poison on the muscle."—*H. C. Wood*.

Dr. S. Ringer says: "If Nussbaum's observations are confirmed, they would seem to show that Nitrite of Amyl may act through the influence of the vaso-motor centers.

"The paralyzing effect on the arterial system is well shown by the sphygmographic tracings, the flushings of the face, and the increase in the size of the visible arteries,—like the temporal, which often becomes notably large; sometimes, indeed, doubled in size, branches previously invisible becoming plainly apparent,—and by the interesting fact observed by Talfourd Jones, who, while cupping a patient over the loins, and finding that blood would not flow, administered Nitrite of Amyl, by inhalation, when the cuts immediately began to bleed freely. After an inhalation, the larger arteries are slower in recovering their normal size than the capillaries,—a phenomenon I have often observed in the tem-

poral artery, which remains enlarged half a minute longer after the blush has quite left the face."

Heart.—"In man, the pulse-rate is enormously increased by Nitrite of Amyl. In animals, the amount of the increase varies; but, in the higher groups, the rule appears to be the increase of the pulse-rate, which is especially decided in the dog. Filehne has, by a single very ingenious experiment, seemingly proved that the acceleration is due to a depressing influence upon the inhibitory centers. He divided the par vagum in a rabbit, employed an electric current to the severed nerves, of sufficient strength to bring the pulse-rate to normal, and found that Amyl was powerless to affect the rapidity of the cardiac action. Confirmed by Mayer and Friedrich. It is known that sudden asphyxia slows the pulse by exciting the inhibitory centers. Mayer and Friedrich found that this action is prevented by the inhalation of the Amyl salt. Then, again, they found, that, when by compression of the arteries the blood was prevented from going to the head, the Nitrite did not increase the rapidity of the pulse; and also determined that the reflex inhibitory slowing of the heart by irritation of a sensitive nerve, is prevented by Amyl. The whole evidence seems to show that the sudden, thumping, rapid stroke of the heart, which is so early produced by the Nitrite of Amyl in man, is due, at least in part, to a depression of the inhibitory cardiac nerves. It is also plain why the increase of the pulse-rate is greater in dogs—in which the cardiac inhibitory system is more powerful—than in domestic rabbits, in which it is very feeble."
—*Prof. H. C. Wood.*

Temperature.—"Nitrite of Amyl, in whatever way exhibited, if given in sufficient amount, reduces most remarkably animal temperature. I have seen a pigeon perfectly conscious, although its temperature had been brought down by this agent some 13° F. This influence is as marked in fever as in the normal condition of the animal, and is independent of the nerve centers, occurring after section of the cord, and even after death in those cases in which post-mortem rise or continuance of high temperature normally takes place. I have also experimentally determined that it is associated with diminished excretion of carbonic acid. It must therefore be due to a direct arrest or check of tissue-changes or oxidation within, or without, the blood. Dr. Aug. Ladendorf (Berlin, *Klin. Wochenschr.*, No. 43, 1874) claims, that in man, inhalations of small amounts of Nitrite of Amyl are followed by a rise

of $\frac{1}{2}^{\circ}$ F. (average); in some carefully conducted experiments on a patient at the University Hospital by my resident physician, Dr. Mastin, the rise of temperature was noted; but it was very momentary, and evidently dependent upon vascular dilatation. Very possibly this rise is a mere external phenomenon, and is not participated in by the deeper parts of the body. Ladendorf took the temperature in the mouth; Mastin, in the mouth and axilla.

"The vapors of the Nitrite have a very marked influence over oxidation outside of the body, as is shown by many facts, of which it is only necessary here to cite the extinguishment of glowing phosphorus by a few drops of the Amyl salt diffused through the jar. It cannot be doubted that within the animal economy the same thing occurs. If, however, the arrest of oxidation was complete, instant death from suffocation would result. The true explanation of the symptoms evidently lies in diminution, not destruction, of oxidation.

"When an animal inhales the Nitrite of Amyl, the arterial and venous blood soon become of a nearly uniform hue, which resembles somewhat that of normal venous blood, but is quite distinct from it, having a chocolate tint. Moreover, this chocolate-colored blood does not assume the arterial hue when shaken with the air. Jolyet and Regnard have confirmed this inability of the blood to take up oxygen. Dr. Arthur Gamgee has made a masterly examination into the subject, and thrown much light upon it. He finds that the spectrum of blood treated with Nitrite of Amyl changes simultaneously with the color. The too sharply defined absorption-bands of the oxyhæmoglobin become fainter and fainter, and entirely disappear, unless the stratum of examined blood be exceedingly thick, when faint indications of them remain apparent. At the same time, new bands appear, precisely resembling those of acid hæmatin. If ammonia be added to the chocolate blood, the color changes back to a blood-red again, and simultaneously the spectrum-lines regain their normal position. If, however, an amount of phosphoric acid precisely equivalent to the amount of ammonia added, and therefore just sufficient to neutralize it, be placed in the blood, the chocolate color reappears, and with it the changes of the spectrum. Moreover, if a reducing agent, such as sulphide of ammonium, be added to the chocolate blood, it is able to deoxidize the oxyhæmoglobin, but, before doing so, evidently removes it from union with the Nitrite, since the new bands disappear, and those of oxyhæmoglobin reappear, in the spectrum, before the lines of the reduced hæmoglobin manifest themselves. These facts are, seemingly, explicable only on the supposition that

the Nitrite makes with the oxyhæmoglobin a compound which is so unstable as to be broken up by ammonia and by reducing agents.

"Dr. Gamgee next pushed his researches to find whether the respiratory function of the blood was interfered with by the Nitrite, —whether the power of the hæmoglobin to absorb and yield up oxygen was destroyed. By a series of experiments, in which blood was shaken with an accurately measured amount of air, he found that, while normal blood absorbed a large percentage of oxygen, blood to which the Nitrite had been added, failed to take up an appreciable portion of the gas, even if it (the blood) had been previously saturated with carbonic acid gas. As is well known, carbonic oxide gas has a remarkable power of expelling the loose oxygen of the blood; but it was found, that, upon blood to which the Nitrite had been added, it had no influence; and conversely, that, on the florid blood of carbonic oxide saturation, the Amyl salt had no effect. It was also found that the air-pump was powerless to draw oxygen out of the blood containing the salt, although the oxygen still existed in the Nitrite blood; since reducing agents restored the oxyhæmoglobin spectrum even in blood from which all access to the air was prevented. These facts are in complete accord with those previously spoken of, as showing that the Nitrite of Amyl unites with the oxyhæmoglobin to form a new compound. Dr. Gamgee finally furnished the last ocular demonstration of obtaining the compound in crystalline form, by means of a process which it is not necessary to detail here. This Nitrite oxyhæmoglobin has no power of absorbing oxygen, as follows from experiments previously detailed, and as Dr. Gamgee also determined by direct experiments.

"These researches of Dr. Gamgee have not, that I am aware of, been confirmed, but I think may be accepted as accurate. They do not, however, prove that Nitrite of Amyl entering into the blood-vessel at once paralyzes the hæmoglobin of the blood-corpuscles and checks all oxidation. As already stated, the experiments of Dr. Gamgee showed conclusively that this new compound yields up its oxygen to reducing agents. Further, the Doctor found, that, when the Nitrite blood was brought into contact with prepared guaiacum-paper, it still ozonized it, though not so actively as normal. It is evident that the blood-corpuscles retain to a greater or less degree their power of yielding up ozone to bodies desiring it; that they are capable of exerting at least this portion of their respiratory functions; further, where this oxygen is given and the oxyhæmoglobin changed into hæmoglobin, so far as

our present knowledge goes, the hæmoglobin must absorb more oxygen before it can reunite with the Nitrite. Evidently, then, absorption of oxygen must take place; evidently, the blood-corpuscles must perform their respiratory functions; but evidently, also, they are greatly crippled and impaired in the rapidity and ease of its performance. Hæmic respiration is, in other words, greatly interfered with, but not abolished.

"The accord of the results of this chemical investigation with those arrived at by a purely physiological study of the drug, is very striking and very beautiful, both teaching the same thing,—lessened, but not absolutely arrested, oxidation.

"Having ascertained the existence of diminished oxidation in poisoning by Nitrite of Amyl, the temptation is very strong to attribute all the symptoms produced by it to this arrest. I do not, however, think that this *post hoc propter hoc* argument is justifiable, for the following reasons: In the first place, the nitrate of potassium and other nitrates, according to Dr. Gamgee, act in the same manner upon the blood, yet the symptoms caused by them are very different from those caused by Nitrite of Amyl. In the second place, when arrest of oxidation is caused by deprivation of oxygen, the symptoms are very different, the brain and consciousness being always affected before the centers of reflex action; whereas, under the influence of the Nitrite of Amyl, the contrary occurs. In the third place, other substances, such as toxic doses of alcohol, check oxidation, but do not cause the same symptoms as does the drug under consideration. The obvious inference seems to me to be that Nitrite of Amyl acts directly upon the nerve centers, independent of its influence on the blood.

"Because, in the first stage of its action on man, there is very marked functional excitement of the heart, it has been held that Nitrite of Amyl is a motor-stimulant,—a most erroneous idea. The cardiac excitement has seemed to me not to be directly owing to the drug. I have explained it as being reflex in its nature, as follows: 'When the Nitrite is taken into the lungs, it instantly arrests or diminishes oxidation, and a thrill of impending suffocation runs through the system, in obedience to which the respiratory and circulatory organs gather up and exert to the utmost their forces. The central impulse sent to the cardiac and respiratory muscles is at first much more than sufficient to overcome any direct action of the Nitrite upon them; but, the inhalation being persisted in, the impulse is constantly growing weaker and the direct influence of the drug stronger; so that there soon comes a

time when the reverse is true, and the heart's power is more or less nearly extinguished.' It must be remembered that this explanation is only plausible at most, not proven. If Filehne's conclusion is hereafter shown to be correct, the cause of the increased cardiac action must be set down as paralysis of the inhibitory centers."
—*Dr. H. C. Wood.*

Nervous System.—"I have found, as the result of numerous experiments made in the ordinary methods, that the diminution of reflex activity and of voluntary motion which undoubtedly occurs in toxæmia from the agent now under consideration, is chiefly spinal in its origin; since after death the nerves and muscles preserve, though in an impaired condition, their functional power. On the *motor centers* of the cord the Nitrite acts as a *direct* and powerful *depressant*, at the same time that it exerts a similar, but much less pronounced, action on the nerves and muscles; decreasing, but not destroying, their functional life. The diminution of reflex activity is never preceded by a stage of functional excitement. In some animals, convulsions do occur, especially when the drug is administered by inhalation; but they are, in all probability, cerebral, not spinal, and due to the asphyxiating influence of the poison. Over the sensory nerves and centers, Nitrite of Amyl has but little power. They are among the last portions of the body to be affected, sensation being intact until near death; so that the drug is in no sense an anæsthetic. Mayer and Friedrich assert that at first Nitrite of Amyl increases the rapidity and depth of the respiration by stimulating the respiratory centers. Whether this be or be not correct, it is certain that later the respiratory centers are greatly depressed, the breathing becoming both slow and shallow, and death finally occurring from paralytic asphyxia."—*Dr. H. C. Wood.*

Kidneys.—"Dr. F. A. Hoffman discovered a very interesting phenomenon, as an effect of poisoning with the Nitrite of Amyl; that is, he found the urine of rabbits loaded with sugar. He found, that in the rabbit a hypodermic injection of 0.111 to 0.113 gramme of the drug is enough to cause diabetes. If twice this amount of the Amyl salt is used, the sugar becomes very abundant in the urine, and continues to be present for from twelve to thirty hours. Consentaneously with the elimination of sugar, there is a great increase in the amount of the urine. In a patient under my care, to whom the salt was given very freely, at no time could sugar be detected in the urine, so that glycosuria is probably only induced by toxic doses."—*Dr. H. C. Wood.*

Locally.—"Nitrite of Amyl causes a progressive loss of functional power in every highly organized tissue with which it comes in contact. Nerve centers, peripheral nerves, muscles of organic and voluntary life, all succumb to it alike. If the contact be not continued too long, the tissue may recover even after a total suppression of its function,—a proof that the poison exerts no destructive chemical or devitalizing influence upon the tissues, such as that of Sulphuric acid or Veratria."—*Dr. H. C. Wood.*

Therapeutic Individuality.

Flushing of the face, head, and neck, with heat and perspiration of the same, accompanied with cold hands and feet, is the greatest key-note we have for the use of Amyl.

Frequent flushing and perspiration of the face and neck of women at the climacteric.

Sensation as if the blood would start through the skin of the face, with lachrymation.

"A severe burning sensation over the loins, from whence a glow of heat spreads over the whole body, followed by perspiration. This sensation was so unendurable that she would rush to an open window at night, even in the winter, and sometimes rush outdoors. This symptom had lasted three years, with several attacks daily, and was cured in ten days."—*Ringer.*

General relaxed, weak feeling all over the body, with sudden perspiration.

Highly extolled for night sweats from debility.

Flushings constitute the chief symptom for the use of this drug.

Head.—Much mental confusion, with a dream-like state.

"Anxiety as if something might happen; *must have fresh air; actual fright* at the throbbing in the head, and a bursting-out feeling in the ears."—*Hg.*

Trance-like state, everything seeming unreal to her.

Sudden joy, with flushing of the face.

Melancholy, without anguish.

Great heaviness of the head, with beating, throbbing, bursting headache.

Heat and throbbing in the head, with vertigo, and hot flushings.

"Visible pulsating throbbing in the temples, with tension in the temples, and a feeling of something rushing upward."—*Hg.*

It causes no severe pain in the head until the acme of its effects is reached.

"Sensation of a vapor spread from her, through the head, rendering her powerless."—*Hale*.

The hyperæmia of the brain caused by Amyl, is not always accompanied by pain, but by a sense of great fullness and pressure.

Insomnia, sleep very imperfect and filled with anxious dreams, especially in brain-workers.

"Congestive headache, accompanied by ptosis palpebræ; the eye shows marked hyperæmia."—*Dr. H. B. Fellows*.

Migraine and neuralgia, with great prostration and tremors, especially where the affected side looks paler than the sound one.

Congestive headache, head feels intensely full, with throbbing of the arteries, aggravated by motion and warm air, relieved by cool air and rest.

Eyes.—Amyl has been found of great value in exophthalmic goiter; one case is reported cured by the olfaction.

"Under the ophthalmoscope the veins of the disc were seen to become enlarged, varicose, and tortuous, the arteries small, conjunctiva bloodshot; protruding, staring eyes."—*A. and N.*

A spot on the wall appears of a yellowish hue, surrounded by a yellowish circle, and this again surrounded by a violet-blue halo, with undulating edges.

"Aching pains in the eyes in sunlight, with profuse running of tears, followed by sneezing."—*Hg.*

"Ciliary neuralgia; eye injected; face or cheeksuffused."—*Hg.*

"Eyes protruded, staring, with a glazed look."—*Hg.*

Ears.—"Throbbing in the ears; bursting sensation as if the membrane would be forced out with each beat of the heart."—*Hg.*

"Burning heat in the ears."—*Hg.*

Digestive Organs.—"Smacking of the lips as if in the act of tasting."—*Hg.*

"Short munching movement of lower jaw, as if in the act of chewing."—*Hg.*

"Choking feeling on either side of the trachea, along the carotids; feeling of constriction."—*Hg.*

"Collar seems too tight, must have it loosened."—*Hg.*

Fullness and pressure in the stomach, with belchings and cardialgia."—*Hg.*

"Spasm of the stomach."—*Dr. Austic*.

Magnificent in hiccough.

Urine.—Increased, containing an abundance of sugar. It ought to be of great value in acute diabetes.

Sexual Organs, Female.—Nervous spasmodic neuralgic dysmenorrhœa; menorrhagia.

"During catamenia most violent left-sided headache, beginning in the morning; most violent at noon, lasting till evening, with frequent vomiting."—*Hg.*

Post-partum uterine hemorrhages are arrested instantly by inhalations.

"Convulsions occurring immediately after delivery."—*Hg.*

"Chronic blushing in climacteric years; blushing with disease of right heart."—*Hg.*

It is one of our most useful remedies in the frequent hot flushings of women at the climacteric.

In puerperal convulsions, it is of great value, by inhalation.

Respiratory Organs.—"Feeling of constriction in the throat, extending to the chest, with dyspnœa."—*Hg.*

"Oppressed, difficult, and rapid breathing."—*Hg.*

"Dyspnœa and asthmatic feeling in larynx and trachea."—*Hg.*

"Suffocation and cough in paroxysms of several minutes, in disease of the heart."—*Hg.*

"Cardiac dyspnœa with extreme anasarca, due to a dilated and hypertrophied heart."—*Hg.*

"In asthma, my own experience of several cases coincides with that of various physicians, that it will often instantly arrest the paroxysm, especially in those instances in which there are no secondary lesions, such as emphysema and dilated heart."—*Dr. H. C. Wood.*

I believe the form of asthma best adapted to Amyl is the truly spasmodic without much inflammation or heart complication

Pertussis, it greatly modifies, and shortens its duration.

Dr. G. Buyses reports ten cases in which it was given at the moment of paroxysm by inhalation, with the best of results.

Chest.—"Angina pectoris, with throbbing of the heart and carotids, as high as the ears: very severe præcordial pain, extending to the right arm."—*Dr. Ringer.*

The most signal relief has been obtained from the inhalation of Amyl nitrite in *angina pectoris*; and people subject to this fearful malady should always carry the Amyl with them

"Sudden beating of the carotids, which extends to the head and temples, accompanied with intense flushing of the face, which precedes debilitating perspiration."—*Hg.*

"Fluttering at the heart on the slightest excitement."—*Hg.*

"Tumultuous action of the heart, with great præcordial anxiety and quick respiration."—*Hg.*

"During the paroxysm of cough the pulsations of the heart could not be counted, neither was it possible to count the radial pulsations."—*Hg.*

"The irregular, rumbling sound of the heart could be perceived almost instantaneously to change into a more regular pulsation in organic heart disease."—*Hg.*

"The heart gave one strong beat; and, from the stage of agony, the patient passed to one of perfect repose and peace, in angina pectoris."—*Hg.*

"Aortic insufficiency, with excessive hypertrophy of the heart and severe frontal headache."—*Hg.*

"As the pain in the arm increases, the sphygmographic curve becomes lower, both ascent and descent more gradual."—*Hg.*

"An aching pain and constriction around the heart."—*Hale.*

"It invariably quickens the pulse, sometimes doubling its pace."—*Hale.*

Partial paralysis of the sympathetic; relaxes the whole arterial system.

Angina pectoris, with throbbing of the heart and carotids, with great agony.

Pulse irregular and jerking.

The whole arterial system is relaxed, from partial paralysis, with much præcordial anxiety.

Extremities.—"Severe præcordial pain, extending to the right arm, in angina pectoris."—*Hg.*

"Soreness in the right arm and shoulder."—*Hg.*

"Veins of hands dilating to double their previous size."—*Hg.*

"Hands trembling; grasping at imaginary objects, in convulsions."—*Hg.*

"Hands tremble; fingers numb and stiff."—*Hg.*

"Profuse sweat of hands."—*Hg.*

"Lameness and soreness in the muscles of the arms and thighs."—*Hg.*

"Tired, weak feeling of the limbs."—*Hg.*

Nerves.—"Great restlessness, every muscle seems to be in motion."—*Hg.*

Tired feeling of all the limbs.

"Epilepsy; succession of fits, linked together by intervening unconsciousness; fits recurring with increasing frequency till at last no sooner is one fit ended than another begins."—*Hg.*

"The convulsions of epilepsy are, according to the present theory, due to a vaso-motor spasm at the base of the brain. In the *status epilepticus*, when there is an almost indefinite repetition of the fits, the remedy is of great use in stopping them; when there is a notable interval in ordinary epilepsy between the aura and the convulsion, the spasms can usually, if not always, be entirely prevented."—*H. C. Wood, M. D.*

"In convulsions occurring immediately after delivery, the spasms are immediately arrested by the inhalation of Amyl."—*Dr. W. F. Jenks.*

Sea-sickness. Amyl, by inhalation, has cured many cases. In chloroform narcosis, it is highly recommended.

Fever.—"Frequent chilly crawlings over the whole body, face pale all day."—*Hg.*

"Flushings, occasionally, peculiarly and abruptly limited, reaching to the thighs, knees, or elbows, which feel icy cold.

After the heats pass away, the skin becomes cold and clammy, and may turn very pale.

"Flushings, or 'heats' starting from various parts of the face, the epigastrium, etc., thence spreading over the greater part of the body."—*Hg.*

"Heats are followed by sweating, often very profuse."—*Hg.*

"Heats with great throbbing throughout the whole body; followed by much prostration, seeming scarcely able to rouse herself."—*Hg.*

"Lowers the temperature by checking the oxidation.

Intermittent Fever.—The Nitrite of Amyl is reported to cure at once intermittent fever; but Dr. H. C. Wood says: "I have seen it used in a number of cases of intermittents, with the invariable result of putting an end to the chill, and not affecting the hot stage."

Aggravation.—By motion, and in a warm room.

Amelioration.—In the open air and by rest.

ANTIMONIUM CRUDUM.

Sulphuret of Antimony.

Chemical preparation. Trituration.

Antidotes.—Merc., Hep.

Through the cerebro-spinal nervous system, Antimonium crudum has two special centers of action :

- I. MUCOUS MEMBRANES. *Become Loaded with Mucus.*
- II. SKIN. *Corns, Callosities, and Pustules.*

Mucous Membranes.—Antimony acts upon all mucous membranes, depressing their function ; but, through the pneumogastric nerve, it especially affects the digestive organs, producing slow digestion, and the mucous membranes become loaded with mucus ; but this action hardly ever goes on to active inflammation. In large doses, very severe nausea and vomiting are produced. This slow digestion produces fermentation ; flatulence ; alternate constipation and diarrhœa. The secretions and flatulence are of a foul odor.

Skin.—Here it produces corns, callosities, split-nails, tubercles, pimples, pustules, and nettle-rash.

Therapeutic Individuality.

The great key for the use of this drug is a thick, milky-white coating on the tongue, from slow digestion.

"The mucous membranes are loaded with mucus, with slow digestion, fermentation, nausea and vomiting."—*Hughes*.

"Stomach out of order, belching with the taste of food, nausea and hard stool."—*Hg.*

"Long-lasting loss of appetite, with disgust for all food ; intense thirst, more at night, and great desire for acids."—*Hg.*

Gastric symptoms greatly aggravated by acid wine.

Violent vomiting of mucus and bile ; renewed by eating.

Painful sense of fullness of stomach, as if overloaded.

"Gastric catarrh, white tongue, nausea and vomiting ; bowels loose ; stools in lumps."—*Hg.*

"Cutting colic, with watery diarrhœa ; cholera infantum, with yellow, stinking stools ; anus excoriated."—*Hg.*

"Diarrhœa, worse from acids; sour wine; overheating; cold bathing; night, and early mornings."—*Hg.*

"Alternate diarrhœa and constipation in old people."—*Hg.*

Constipation with excessive flatulence; stools white and lumpy.

"Hæmorrhoids; a good deal of mucus continually discharged from the anus; mucous piles."—*Hg.*

Urinary Organs.—"Frequent and profuse urination, loaded with mucus, and diarrhœa; chronic catarrh of the bladder."—*Hg.*

Female Sexual Organs.—"Tenderness over the ovarian region, with nausea, vomiting, and white tongue."—*Hg.*

"Distinct pressure in the womb, as if something would come out, with hemorrhage."—*G.*

Menses too early and too profuse.

Watery, acrid leucorrhœa.

Hæmorrhoidal affections during pregnancy; nausea and vomiting.

Sexual desire exalted in both sexes.

Air Passages.—"Sore, cracked, and crusty nostrils, and corners of the mouth."—*Hg.*

Cough from irritation in the abdomen; looking in the fire, or hot sun, increases the cough.

"Violent spasms of the larynx and pharynx, as if the throat were filled with a plug; aphonia from getting overheated.

Whooping-cough, aggravated by warmth and over-exertion.

Cough loose, mucus excessive; tongue coated white.

Limbs.—Arthritis in elbows, fingers, and joints of the legs.

Horny warts on hands, nails grow in splits; horny growth under the nails, painfully sensitive

Legs fall asleep while sitting; great sensitiveness of the soles of the feet while walking.

"White swelling of the knee, with tearing pains."—*Hg.*

"Corns; large horny places on the soles close to toes; become inflamed and very sensitive."—*Hg.*

Some wonderful cures of corns and callosities have been reported as effected by this drug.

Skin.—Horny excrescences; thick, hard scales; spongy ulcers; pustules and boils, especially if the digestion is perverted.

"Urticaria, comes and goes, white lumps with red areolæ; very hot and thirsty; from meat or over-eating."—*Hg.*

Measles, eruption delayed, with severe vomiting and great oppression.

"Complaints after bathing in cold water."—*Hg.*

"In old people, inflammation of the skin, corns, horny excrescences; fistulous ulcers; fungus articularis; obesity; excessive hemorrhage, and dropsical effusions."—*Lippe.*

The skin symptoms mostly depend upon indigestion.

Fever.—Intermittents, white tongue; nausea and vomiting; chill without thirst; severe thirst with the fever and sweat.

"Chilliness predominates during the day; heat at night, and sweat in the morning."—*Dr. Jessen.*

Especially useful in intermittents and rheumatism.

Head.—"Loathing of life; the greatest sadness prevails in intermittents; irritable; headache, with gastric symptoms."—*Hg.*

Much headache from perverted digestion; mostly in forehead.

Sleepless at night, but sleepy during the day.

Chronic ophthalmia; eyes inflamed, and lids agglutinated at night.

"Disposition to take cold about the head, from bathing in cold water; worse evenings and from getting warm."—*Hg.*

Metastasis of gout and rheumatism, causing gastric catarrh.

Hydrogenoid constitution; young people that grow fat, and can not bear cold water.

Aggravation.—Evening; getting overheated; can not bear the sun; very sensitive to cold air; can not bear cold water; from acid wine, and from motion.

Amelioration.—During rest; in open air; from warm food.

ANTIMONIUM TARTARICUM.

Tartar Emetic.

Chemical preparation. Trituration and Aqueous solution.

Antidotes.—Cupr., Ipec., Puls., Chin., Cocc., Tannic acid.

Through the cerebro-spinal system, Tartar emetic has five special centers of action :

- I. MUCOUS MEMBRANES. *Catarrh, and Pustular Inflammation.*
- II. SKIN. *Pustular Inflammation.*
- III. CIRCULATION AND BLOOD. *Heart Depressant; Blood Liquefied.*
- IV. SPINAL CORD. *Motor and Sensory Paralysis.*
- V. MUSCULAR SYSTEM. *Paralysis; Loss of Reflex Action.*

Mucous Membranes.—Tartar emetic produces pustular inflammation of the mouth, throat, œsophagus, stomach, and small intestines. Through the vagi, it produces intense catarrhal inflammation of the larynx, trachea, and bronchi. Its action upon the vagi deserves particular attention.

As an emetic, Tartarized Antimony produces considerable depression, with nausea in a much greater degree than most other emetics; and the repeated vomiting is accompanied by great straining. Its action is somewhat tardy, sometimes twenty minutes to half an hour; hence, in cases of poisoning, it is an unsuitable emetic.

“Magendie has shown, that, when injected into the veins, Tartar emetic excites nausea, even after the removal of the stomach, and its substitution by a pig’s bladder; hence, it has generally been held that this salt produces vomiting, not by its effects on the stomach, but on the nervous centers. Grimm, who is confirmed by Kleimann and Simonowitsch, finds, that, when injected into a vein, it excites vomiting more slowly, and a larger dose is required, than when administered by the stomach; whence he concludes that it produces vomiting by its effects on the terminations of the nerves of the stomach. Other observers explain the above facts by the supposition that Tartar emetic acts both through the terminations of the nerves of the stomach and directly on the center of vomiting.

“After small medicinal doses, the stomach experiences a slight sensation of soreness,—a sensation easily mistaken for hunger.

Pushed yet further, it produces increased secretion of mucus from the stomach and intestines, to the extent of producing numerous moist diarrhœic motions, with colic. The bronchial mucous membrane also yields an increased secretion; and probably the secretion of the whole mucous tract is augmented."—*Ringer*.

In poisoning by Tartar emetic, we have violent and continuous vomiting, accompanied with diarrhœa,—stools watery, bilious, and sometimes bloody,—with gastro-enteritis, and sometimes peritonitis. The prostration is profound; pulse and respiration slow, with repeated faintings. From nine to fifteen grains is regarded as a fatal dose for a healthy adult; but death has resulted from two grains, and in children from three-quarters of a grain.

Post-Mortem Appearances.—"The most important are those of gastritis, which are rarely wanting; in some cases this has reached the highest degree, and led to hemorrhagic exudation and infiltration upon and into the mucous membrane of the stomach, and even to abundant hemorrhage into the intestinal canal. In several cases extension of the inflammation to the serous membrane has been reported. Slight ulceration of the mucous membrane has frequently been seen; and in some cases it has been found in the upper part of the small intestines."—*Ziemssen*.

Kidneys.—The urine is first increased; but, in severe poisoning, it is generally scanty and bloody, and even suppressed. C. Gathgens found, in his experiments, an increase of the elimination of urea after repeated toxic doses of Antimony.

Respiratory Organs.—"The respiration in poisoning by Antimony is very irregular, with all sorts of variations in the rhythm of the act. In the advanced stages, the pauses are often very long, and the inspiration and expiration so forced and prolonged that very generally, in animals at least, marginal emphysema and subpleural ecchymosis are found after death. The origin of the respiratory trouble is somewhat complex; the chief factor being the direct influence of the drug upon the respiratory nerve centers, and minor causes, the intense venous congestion due to the failure of the circulation, and the alteration of the blood itself. Upon the mucous membrane of the lungs, it acts directly or indirectly. The venous system is much engorged, and the viscera intensely congested. Magendie says, that, in animals, poisoned by Tartar emetic, the lungs are always full of portions apparently hepatized, and in a large proportion of fatal cases, emphysema, pulmonary

apoplexy, atelectasis, or other structural lesions of the lungs exist."—*H. C. Wood*.

Skin.—Pustular ecthyma is a marked effect of Tartar emetic upon the skin, whether applied locally or given internally. Taylor gives one case of poisoning by Antimony, where, after the third day, the patient had large numbers of pustules upon the skin. When applied locally, in from one to three days there appears first simple redness, soon followed by papules, which shortly become converted into vesicles, and then into pustules, varying from one-eighth of an inch to an inch and a half in diameter, and very painful; but, if the application is withdrawn, they readily heal.

Circulation and Blood.—When Tartar emetic is injected into the frog, the cardiac contractions in a very short time are lessened in frequency and force, and become irregular, the auricles pulsating more frequently than the ventricles, until finally arrest occurs in diastole. After death the irritability of the cardiac muscle is almost, or more frequently entirely, destroyed. Upon the heart of the mammal, the drug acts as upon that of the frog. The arterial pressure always falls steadily and to an extreme degree. The pulse sometimes seems accelerated at first, but, in the great majority of cases, is decreased very decidedly in its rate. During this period of slow pulse, the diastolic pauses are extremely long, but the individual beat will influence the mercurial column of the cardiometer five times as much as normal. After a while the pulse suddenly becomes very rapid, the force of the heart-beat is almost completely lost, the arterial pressure falls to a minimum, and in a very few moments diastolic arrest occurs. It is evident that the action of Antimony is a direct one; the irritability of the muscle is lost."—*Wood*.

"There is no doubt that Tartar emetic is a powerful cardiac poison; the cessation of the heart's action which is observed in experiments, is at all events independent of the influence of the poison upon the central nervous system, since it takes place also after the destruction of the medulla oblongata. Fatty degeneration of the heart, liver, and kidneys, has been produced by the drug when fed to animals."—*Dr. Mannyn*.

Blood.—Antimony produces liquefaction of the blood; and it coagulates very imperfectly.

Temperature.—Small therapeutic doses have but little influence upon the temperature; but nauseating doses reduce the temperature from one to three degrees, especially of the extremi-

ties. Poisonous doses reduce the temperature in a marked degree. Ackerman found, that, in rabbits, if they lived five hours, the depression of temperature amounted to 6° C.

Spinal Cord.—Antimony is a direct paralyzer of the motor and sensory nerves, and, through these, of the muscles.

With the motor and sensory paralysis, there is loss of reflex action.

"A prominent symptom in Antimonial poisoning, is paralysis, affecting to an extraordinary degree the sensory, and to a less extent the motor, system. In man, the anæsthesia which occurs in animals has been overlooked; but, in the advanced stages of poisoning, it is no doubt present. According to Radziejewski, the paralysis and diminution of reflex action are of spinal origin; as they occur when the Setschenow's center is previously separated from the cord, as well as when access of poison to an extremity has been prevented by tying the artery. The paralysis occurs in the following order: Sensibility toward thermic and chemical irritants, then toward tactile stimuli, then toward locomotion and reflex action. Thus, a rabbit which could still drag itself around, suffered its paws to be deeply burned without evincing the slightest evidence of feeling."—*Wood*.

Muscular System.—The muscles are the end organs of the motor nerves; and through these the muscular system is prostrated, and its reflex action lost. Antimony is a protoplasmic poison, destroying function in all nitrogenous tissue.

Therapeutic Individuality.

Especially adapted to torpid, phlegmatic, hydrogenoid constitutions, afflicted with catarrh of the mucous membranes.

Melancholic; bad humor; despairs of his recovery; indescribable anxiety and oppression of the chest. In lung and gastric affections.

"Vertigo with drowsiness; the head trembles, particularly when coughing, with an inward trembling; teeth chattering, and drowsiness, more in the evening and in warmth."—*Hg*.

"Vertigo; vision dim; flickering before the eyes, with pressing headache."—*Hg*.

"Cerebral congestion; feels as if brain was pressed together; in pneumonia, intermittents, and gastric affections."—*Hg*.

"Apoplexia nervosa and serosa."—*Hg*.

"Head very hot and sweaty."—*Hg*.

Eyes.—Not much action here, only through sympathy. The eyes look sunken, and are surrounded with dark circles; choleraic diseases.

"Obscuration of sight, flickering before the eyes on rising."—*Noebbling*.

Eyes slightly inflamed; lids covered with mucus; eyes feel tired, must close them continually.

"Rheumatic and gonorrhœal ophthalmia."—*Hg*.

Nose.—Nostrils black, smoky, inflated, and moving rapidly, like wings, in pneumonia."—*Hg*.

"Sneezing, fluent coryza, and chilliness, with loss of taste and smell."—*Hah*.

"Tight feeling across the nose, with nosebleed."—*Gross*.

Face.—The face expresses great anxiety in lung and gastric diseases.

"Suffering, face livid, bloated, anxious; pneumonia."—*Hg*.

"Pale, sunken face; nose pointed, eyes sunken; bathed in cold sweat; in choleraic diseases."—*Hg*.

"Aphthæ around the mouth; pustules on the face."—*Hg*.

Mouth.—Lips dry, parched, in pneumonia and fevers.

"Tongue coated thinly, white, with reddened papillæ; red edges; tongue very red, dry in the middle, with bitter taste."—*Hg*.

Slimy, heavily furred white tongue, or yellow-brown, with nausea and bilious vomiting.

"Pustular inflammation occurs in the mouth, throat, larynx, œsophagus, stomach, and small intestines."—*Hughes*.

Copious salivation with nausea.

Catarrhal inflammation of the mouth, with much mucus in the throat.

Very great thirst day and night.

Stomach.—Loss of appetite; disgust for every kind of food.

"Irresistible thirst for cold water; vomits the smallest quantity taken."—*Hg*.

"Desire for acids, for fruits, or for any cold drink."—*Hg*.

"After every drink, nausea and pressure in the pit of the stomach."—*Hg*.

"Nausea causes great anxiety, in diarrhœa; continuous, anxious nausea, straining to vomit, with sweat on the forehead, in diarrhœa."—*Hg*.

Nausea with great faintness, in gastro-intestinal affections.

"Nausea and continuous vomiting of food, mucus, bile, and blood."—*Hg.*

"Much nausea and vomiting day and night; drowsiness."—*G.*
Vomiting of large quantities of mucus and bilious matter.

"Pit of the stomach sensitive, with meteorism, nausea, and vomiting."—*Hg.*

"Pressure in hypochondria, with distention, most in region of the liver, with vomiting of bile and mucus."—*Hg.*

"Icterus, with pneumonia, especially of the right lung."—*Hg.*

Abdomen.—Sharp, cutting colic before stool, with meteorism.

"Abdomen tympanitic and very sensitive to pressure, or feels as if stuffed full of stones, though he has eaten nothing, and it does not feel hard."—*Hg.*

Stools.—Watery, mucous, bilious, or bloody, diarrhœa.

"Colliquative diarrhœa, with meteorism, and great thirst."—*G.*

"Stools as green as grass, slimy or watery, in summer complaint."—*Hg.*

Cholera, with copious vomiting, watery diarrhœa; great coldness (collapse); thread-like, trembling pulse.

"Diarrhœa in pneumonia, small-pox, and suppressed eruptions."—*Hg.*

Burning at the anus after stool, with stitches in the rectum.

"Tenismus during and after loose stools."—*Hg.*

Urinary Organs.—Painful urging to urinate; scanty discharge, dark red, or the least bloody, with stitches in the bladder and burning in the urethra; spasms of the bladder.

"Painful urging to urinate, depositing blood on standing."—*Hg.*

Sexual Organs, Male.—Orchitis after suppressed gonorrhœa. Sycosis, warts on the glans, ulcers on the genitals and thighs.

Sexual Organs, Female.—Menses too early; too scanty, and last but two days.

"Severe bearing-down in the vagina; dysmenorrhœa, and chilliness."—*Hg.*

Bloody, watery leucorrhœa, worse when sitting; discharges acrid. Pustules on the pudendum.

"During pregnancy, vomiting of mucus; belching; disgust for food; salivation; nausea with faintness, and amblyopia."—*Hg.*

No remedy excels Tartar emetic to dilate a rigid os uteri in labor.

Puerperal metro-peritonitis, colliquative diarrhœa and sweat; great prostration, and no pain anywhere.

Respiratory Organs.—The great key for the use of Tartar emetic is large collections of mucus in the bronchial tubes; expectorated with great difficulty; indicating approaching paralysis of the vagi.

In broncho-pneumonia, second stage, with bronchi loaded with mucus, it is specific; or acute œdema of the lungs.

"Adapted to sub-acute more than to chronic affections of the air-tubes; hence its frequent application in bronchial catarrh, for children and aged people. Infants, especially, sometimes exhibit, in the course of chronic bronchitis [acute too], sudden and alarming symptoms of suffocation. In such cases a vomiting dose of this salt does much good and can not do harm. Afterward the 8x or 4x triturations act all the more favorably on the affected parts."—*Meyhoffer*.

"Coughing and gaping constantly, particularly in children, when crying or dozing; rattling or hollow cough; worse at night, with suffocation, throat full of phlegm, sweat on forehead, vomiting of food."—*Hg*.

Cough when we have a partial paralysis of the vagi; short, hoarse, weak, nearly suffocating breathing, with whistling noise; thorax expands with great difficulty; head thrown backward, with great anxiety and prostration; face livid and cold; forehead, and sometimes the whole body, covered with cold perspiration; pulse feeble and accelerated.

"The nares escape untouched; the inflammation beginning in the larynx becomes intense in the trachea and bronchi."—*Hughes*.

"In pneumonia with high-graded hepatization, it aids expectoration when resolution begins to take place. In chronic bronchial catarrhs, emphysema bronchitasis, senile catarrhs. It gives great alleviation in tuberculosis pulmonum, but causes more rapid dissolution of the tubercles, and hastens the downward course. In croup as an intermediate remedy for the solution, and to keep off paralysis. It acts well in those cases without producing emesis."—*Dr. Hirschel*.

Croup. This drug is of great value in croup, with weak, hoarse voice; rapid, short, heavy, anxious breathing; danger of suffocation; face blue, skin cold, clammy; large quantities of mucus in the bronchi, that can not be expectorated; catarrhal form; and is often of great utility in membranous croup. Use first three potencies.

"Respiration with great rattling of mucus; it threatens to suffocate the child; in croup, bronchial catarrh, and pneumonia."—*Hg*.

"Breathing short and suffocating; extreme want of breath, worse at night; must sit up to get air; coughing relieves; in pneumonia, bronchial catarrh, and œdema of the lungs."—*Hg.*

"Asphyxia, from pneumonia, capillary bronchitis, atelectasis; from accumulation of mucus which can not be expectorated; from emphysema, acute œdema pulmonum, with hydrothorax, and impending paralysis of the lungs; accompanied by drowsiness or coma; pale or dark face; blue lips; delirium; muscular twitchings; thread-like pulse; and from mechanical causes, as from drowning."—*Hg.*

Circulation.—Small, frequent, thready pulse, or trembling, in pneumonia; catarrhal bronchitis and gastric affections.

"Palpitation of the heart; feels warm about the heart."—*Hg.*

Back.—"Violent pain in the sacro-lumbar region; the slightest effort to move causes retching and cold sweat; or as if a load was hanging on the end of the coccyx, dragging downward all the time."—*Hg.*

Lumbago. No remedy in the *Materia Medica* can equal this drug in this painful malady; if given so that it will produce slight nausea, it will cure about every case.

Neck and back stiff, aggravated greatly by motion.

Extremities.—"Hands cold and moist; tips of fingers icy cold, with trembling of the hands."—*Hg.*

"Rheumatism, pain in wrists, knees, ankles; violent pain as if the flesh were torn from the bones, or arms dislocated."—*Hg.*

Limbs over-fatigued; heavy, can not move them from weakness. So weak can not stand; muscles twitch, and the whole body trembles.

Great lassitude and debility in malarial fevers.

"Prostration and collapse in choleraic diseases."—*Hg.*

So exhausted that he falls in a semi-coma and lies motionless.

Skin.—Skin pale, shriveled, cold and clammy.

"The breast and inner surface of arms and thighs were thickly covered with an eruption of bright red, small, conical, distinct hard pimples, having an inflamed base, resembling lichen, itching intolerably."—*J. H. Woodbury, M. D.*

In variola it is of great value, especially in second, pustular stage, size of a pea, soon covered with brown crusts; also where eruption does not come out good, with convulsions, diarrhœa, etc.

"Skin hot and dry, in pneumonia or bronchitis."—*Hg.*

"Vesicular eruption over whole body, with restlessness."—*Hg.*

Skin very sensitive to every change of the weather.

Fever.—"Chill with external coldness, at all times of the day, with trembling shaking; feels as if cold water was poured over him."—*Hg.*

Chills and heat alternate, but chills predominate.

"Long-lasting heat after a chill, with somnolency, and sweat on the forehead, or profuse cold, clammy sweat, with great thirst."—*Hg.*

"Skin chilly, with copious sweats that do not relieve."—*Hg.*

"Temperature increased in pneumonia and rheumatism."—*Hg.*

Intermittents, with long-lasting sweats, and marked gastric affections, and soporous sleep.

Bilious and gastric fevers; great prostration; much nausea and vomiting, with great prostration; and cold sweats.

Profuse night sweats after intermittents; patient is drowsy and has much jerking of the limbs.

Asthenic fevers, with great debility and much trembling.

I use the first three triturations, and am satisfied.

As a counter-irritant, Tartar emetic is often of great value in lung diseases and chronic affections of the spine.

Aggravation.—In the evening; damp, cold weather; getting warm in bed, and from lying crooked.

Amelioration.—In open, cool air; during the day; from sitting erect, and from moistening the affected parts.

APIS MELLIFICA.**Poison of the Honey-bee.**

Habitat: America, Europe, etc. Trituration of the poison-sac, or tincture, Class IV.

Antidotes.—Lach., Urt. ur., Canth., Lactic acid, and Plantain.

Through the organic nervous system, Apis has five special centers of action:

- I. CELLULAR TISSUE. *Œdema and Dropsy.*
- II. SKIN. *Urticarious Inflammation.*
- III. SEROUS MEMBRANES. *Dropsy.*
- IV. MUCOUS MEMBRANES. *Œdematous Inflammation.*
- V. GLAND. S. *Ovaries, Testicles, and Tonsils, Hypertrophied.*

Cellular Tissue.—Apis produces rapid swelling of the cellular tissue, with redness, burning, and stinging pains, which are soon followed by acute œdema and dropsy. Stings of bees produce erysipelatous swelling of the face, so great that they can be hardly recognized, from infiltrations into the cellular tissue. The legs and feet become greatly œdematous.

Skin.—Apis produces urticarious inflammation of the skin. Dr. H. Goullon says: "It cures internal morbid states which reflect themselves on the skin; e. g., an exanthema with burning, itching, fissuring pains; an urticaria with red or white areola, spots or pimples; a vesicular eruption with a bluish-red, hard, hot base; an œdematous or erysipelatous swelling; ulcers, or suppressed scarlatina and measles."

Serous Membranes.—Here, this drug produces a condition similar to those which are the products of serous inflammation; i. e., dropsical effusions, as hydro-pericardium, ascites, and hydrocephalus; and it has been of signal service in dropsical effusions.

Mucous Membranes.—Apis produces inflammation of the mucous membrane of the eyes, mouth, fauces, tonsils, throat, gastro-intestinal tract, kidneys, and neck of the bladder; more of a sub-acute catarrhal variety, dipping down into the cellular tissue, producing an œdematous inflammation.

Glandular System.—It acts especially upon the ovaries and testicles, producing congestion, mild inflammation, with a great tendency to become dropsical; acting more especially upon the left ovary, producing suppression of the menses, dysmenorrhœa, with scanty menstruation, and swelling of the labia of an œdematous nature.

Therapeutic Individuality.

Particularly adapted to diseases that are located upon the left side of the body (fauces, tonsils, ovaries). The pains that are peculiarly characteristic are like the sting of a bee, burning, stinging; and, in most all diseases that call for Apis, the urine is extremely high colored and scanty.

Meningitis, with effusion; child lies in torpor; delirium; sudden shrill cries; squinting; grinding of teeth; boring head in pillow; one side twitching, the other paralyzed; much sweat of the head, and urine very scanty; sub-acute stage; no thirst.

"Sopor, interrupted by piercing shrieks; restless; absent-mindedness."—*Hg.*

"Thinks he will die; muttering delirium; continual moaning and screaming; violent screaming; cannot help crying."—*Hg.*

Great indifference; apathy; discouraged; irritable and fidgety.

"Confused vertigo, worse when sitting than when walking, extreme when lying down, and on closing the eyes; nausea and headache."—*Hg.*

"Congestion of blood to the head and face; fullness in head from suppressed menses or albuminuria."—*Hg.*

"Head dull, and so heavy that it can not be moved; great pain in the occiput, with sharp shrieks; apoplexia serosa."—*Hg.*

"Head feels swollen; puffiness of the scalp; erysipelas and œdema."—*Hg.*

Hair falls out in spots; burning, stinging pains in scalp.

Ears.—"Otitis after scarlatina, with hardness of hearing; redness and swelling of both ears."—*Hg.*

Erysipelatous and œdematous inflammation of the ears.

Eyes.—"This is an important eye remedy; and it is especially applicable to inflammations, with burning, biting pains; inflammations following eruptive diseases; inflammations with severe shooting pains, heat of the head, red face, cold feet, etc. Erysipelatous inflammations of the lids, with adjacent smooth swelling of the face, especially with chemosed conjunctiva, etc. Vari-

ous forms of blepharitis, with thickening or swelling, such as incipient phlegmon, with great puffiness and stinging pains. Often the remedy for acute catarrhal conjunctivitis, with bright redness and chemosis of the conjunctiva, with stinging pains. Various forms of keratitis, with dreadful shooting pains through the eye; lids swollen; hot lachrymation, gushing out on opening the eyes; photophobia, and ulceration of the cornea, the discharges are not acrid."—*A. and N.*

"In staphyloma and hypopyon, when based on an erysipelatous or scrofulous diathesis, study Apis."—*Goullon.*

"Cornea thick, having dark, smoky spots, keratitis."—*Hg.*

Scrofulous pustular keratitis, with tumefaction of the lids; much relief from cold water.

"Dilated pupils, in meningitis infantum; squinting of one or both eyes, trembling and rolling of the eyeballs in sleep."—*Hg.*

"Lids œdematous; bag-like swelling under the eyes; lids feel stiff, are swollen."—*Hg.*

Granulations or stytes; ulceration of lids; eyelashes fall out.

Nose.—Erysipelatous inflammation of the nose, with burning, stinging pains. Nasal catarrh, with thick, white, fetid mucous discharge, often mixed with blood; often seen in scarlatina; or dryness and swelling.

Face.—Swollen, pale, waxen, œdematous; or erysipelatous inflammation of the face. In dropsy and albuminuria, the face has marked œdema, often extending to the lips.

Mouth.—Buccal cavity red, swollen, and œdematous, with burning, stinging pains.

"Gums sacculated, look watery, or bleed easily."—*Hg.*

"Tongue red at the tip, or dry, with a brown streak down the middle, sides moist; dryness of the tongue, with fiery redness of buccal cavity, and very painful."—*Hg.*

Tongue dry and trembling; can not taste or talk (typhoid). Inflammation of the tongue; it is much swollen, dry and glossy.

Tongue covered with a thick white coating in diseases of the throat and stomach; deep red in scarlatina, cracked, or covered with vesicles.

Throat —Malignant diphtheria; mouth, throat, pharynx, bright red, glossy, as if varnished; in places coated white, but often with dirty grayish, tough membrane; not much pain; breath very fetid, and great debility. This diphtheritic angina is often œdematous.

"Scarlatina eruption just subsiding; throat intensely red, dry, and glazed looking, with small gray ulcers in the throat; fever, skin dry; pulse quick, and great exhaustion."—*Hg.*

Swallowing is done with great difficulty; tonsils greatly swollen and cedematous; with stinging, burning pains when swallowing.

"Could not bear anything to touch his neck; could hardly breathe from suffocation."—*Dr. C. W. Boyce.*

Stomach.—Complete loss of appetite.

"Drinks often, but little at a time; or no thirst."—*Hg.*

"Great soreness when touched in pit of stomach, under the ribs, in abdomen; heaviness and distress in the stomach after eating."—*Hg.*

Vomiting in acute hydrocephalus; vomiting of mucus and bile.

Great soreness and burning in the stomach.

"Gastralgia, with bilious diarrhœa."—*Hg.*

Congestion of the liver and spleen, with bruised pains.

Abdomen.—Inflammation of the peritoneum and bowels, with ascites, and great tenderness of the whole abdomen.

"Sensation in the abdomen as if something tight would break, if too much effort was made to void a constipated stool."—*G.*

"Plunging pain in the abdomen, pains like a bee-sting in peritonitis, with great prostration; rapid pulse, and fever."—*G.*

Stool.—One of our best remedies for morning diarrhœa.

"Diarrhœa every morning, stool green, yellow, watery or slimy mucus."—*Hg.*

"Copious green watery, or thin yellow mucus, with great prostration; the stools occur with every motion of the body, as if the anus were constantly open (Phosphorus)."—*Hg.*

"Olive-green, slimy, profuse stools, full of bright red lumps like chopped beets, with colic and tenesmus."—*Hg.*

"Chronic diarrhœa, with many small passages of blood and mucus, in women at critical age."—*Hg.*

Dysentery, anus feels raw and excoriated, in hemorrhage from the bowels, with burning pains, and tenesmus.

In many diseases there is obstinate constipation.

Urinary Organs.—This is one of the most valuable centers for the use of Apis, when the urine is dark and scanty, especially in ascites and all kinds of dropsy; abdominal walls sore, with stinging pains.

"Incontinence of urine, with great irritation of the parts, worse at night and when coughing."—*Raue*.

Catarrh of the urinary canaliculi, after scarlatina that runs a rapid course, accompanied by albuminuria and general anasarca.

Inflammation of the bladder, with vesical tenesmus, and scanty urine.

Excessive pain in the region of the kidneys and bladder.

Frequent, painful, scanty, bloody urination; urine scanty and high colored in most diseases that call for Apis.

Sexual Organs, Male.—Hydrocele and dropsy of the scrotum; excessive cedema of the parts.

"Sycosis, copious secretion of thin, ichorous matter, with burning, stinging pains; condylomata; ulcers of the glans penis."—*Hg*.

Erysipelatous inflammation of the genitalia.

Orchitis with much hypertrophy of the testicle.

Sexual Organs, Female.—Increased sexual desire.

Enlargement and great irritation of the ovaries, especially the left, with stinging pains.

"Burning, stinging pains in the right ovary for several months.

"Ovaritis, sharp, cutting, lancinating pains in ovarian region, extending down the thighs; worse right side; numbness in side and limb."—*Hg*.

"Constant feeling of weight and heaviness in ovarian region, with a sense of tightness and stinging pains."—*Hg*.

Great irritation in ovarian region, with soreness and stinging, burning pains.

"Inflammation, induration, enlargement, swelling and dropsy of the ovaries, principally the right, often accompanied with paroxysms of severe pain."—*Hg*.

"Dropsy of the right ovary, with so great an accumulation of fluid that motion is almost impossible, with stinging, lancinating pains; urine scanty, and general anasarca."—*Hg*.

Apis has cured simple ovarian cysts; but, when they are solid tumors, its usefulness probably ceases. The specific action of Apis upon the ovaries is most marked and wonderful.

Great sensitiveness of the uterus; menses premature and very copious, with bearing-down pain in the uterus.

"Menorrhagia, with heaviness in the abdomen; faintness, restlessness, yawning, with urticaria."—*Hg*.

Menses very irregular, scanty, with great weakness; ovaries congested, with stinging pains and congestive dysmenorrhœa.

"Amenorrhœa with pain in the right ovary; prolapsus uteri, œdema of the labia, and much debility."—*Hg.*

"Leucorrhœa acrid, profuse, green or yellowish."—*Hg.*

œdema of the labia, often very great.

Acute erysipelatous inflammation of the labia, with stinging pains.

Pregnancy.—"Abortion during the early months, with stinging pains in the ovarian region until labor-pains ensue; much flowing and then abortion."—*Hg.*

"Menorrhagia, with miscarriage."—*Hg.*

Mammæ.—Enlargement and induration of the mammæ, with stinging, burning pains; suppuration, with great tenderness.

Scirrhus tumors, or open cancer; nipple everted, with stinging pains.

Erysipelatous inflammation of the mammæ.

Mammæ discharge bloody milk.

Respiratory Organs.—Apis is of great value in all dropsical effusions of the chest.

œdematous swelling of the sub-mucous cellular tissue of the larynx, with suffocating cough.

"The Apis cough is suffocating, painful, but not so hard as the Belladonna cough, but there is more dyspnœa, and often an œdematous eruption upon the skin. The action of Apis on the larynx offers great analogies to that of Belladonna; and, where the latter fails (or Atropine), Apis may perfect a rapid cure. Apis may also help in that rough, painful cough, accompanied by clear salivation, where the saliva can be drawn out into long strings, like Mercury or Kali bi."—*Goullon.*

Croup, with rattling, hoarse, suffocating cough; œdema glottidis; the respirations very laborious and difficult, with great prostration.

"Chronic laryngitis, with hoarseness, dryness and burning of larynx; voice hoarse and rough."—*Hg.*

"Cough, with threatening resonance which denotes implication of the upper part of the windpipe; bronchitis; cough croupy, with ringing sound; dry, with gagging; soreness of upper part of the chest, with painful concussion of the head, and labored breathing."—*Hg.*

"Great feeling of suffocation; can not bear anything about the throat."—*Hg.*

Oppression of chest, as though patient would smother.

Heart.—Inflammation of the pericardium, with effusion; feeling of suffocation; pulse hard, small, and quick.

"Feeling about the heart as if something was breaking away; great anguish, and sense of suffocation."—*Hg.*

Intermittent, feeble pulse, in dropsy, or violent beating of the heart.

"Pulse changes frequently in character; meningitis; dropsy; typhus, etc."—*Hg.*

Chest feels as if beaten, jammed, or bruised.

Neck and Back.—Glands of neck swollen, with stiffness of neck (diphtheria).

"Pain, with stiffness from neck down between shoulders."—*Hg.*

"Burning and heat, like prickly heat, on the back."—*Hg.*

"Burning pressing in coccygeal region, worse when sitting down."—*Hg.*

Bearing-down in small of the back before menstruation.

Extremities.—(Edema of the hands; numbness of fingers. Rheumatism of the right arm and shoulder.

"Right arm red, swollen, erysipelatous and with stinging pains."—*Hg.*

"Arms paralyzed, and swollen, white as putty."—*Hg.*

Panaritium, with stinging pains; dissecting wounds.

General dropsy, legs and feet waxy, pale, and cedematous.

Albuminuria and general dropsy; the legs and feet are enormously swollen, numb and stiff; can hardly walk.

"Burning pain in both lower limbs, from thighs to ankles; could not move the feet."—*Hg.*

"Thrombosis, limb immovable, covered with reddish and bluish streaks and spots; hard, elastic, hot, exceedingly painful, especially along the crural vessels and nerves."—*Hg.*

Acute synovitis of the knee, followed by effusion; all the joints and limbs are very sore.

Fever.—"Intermittents; chill 4. p. m.; worse in a warm room; or near the stove; renewed chilliness from the slightest motion, with heat of the face and hands; falls into a deep sleep. Protracted cases with no sweat."—*D.*

The great key for Apis in intermittents is, that the sweating stage is almost entirely absent, and the patient during the heat sleeps continually, with more or less headache.

High temperature, with suppuration, scarlatina, or erysipelas.

Typhoid, patient apathetic, with much prostration.

"Sphacelated erysipelas; scarlet rash; red points here and there upon the skin."—*G.*

"Scarlatina, dry nose and throat, with hydrocephalus."—*Hg.*

Blood-poisoning, from scarlatina, diphtheria, or erysipelas.

Lymphatic vessels affected, hard and painful under the skin.

Skin.—Unusually white, almost transparent, in dropsical effusions; legs and feet greatly swollen, and urine scanty.

"Skin extremely sensitive to contact, painful to the slightest touch; could not bear the sheet upon him."—*Hg.*

"Erysipelas after wounds; mortified cellular tissue after vaccination; unhealthy suppuration of ligatures."—*Hg.*

Varicose veins, burn and sting much; acute phlebitis.

Urticaria, comes suddenly, itches and burns like bee-stings.

"Stinging; burning; pricking; smarting or itching of the skin; very sensitive to the slightest touch."—*Hg.*

"Skin very hot, red, and irritated; or has a bloated, swollen appearance, in scarlatina."—*Hg.*

Stings from insects, with red, inflamed eruption, burning like fire, and itching intolerably. Grand for nettle-rash.

Anasarca and general dropsy; first stages of albuminuria after scarlatina, or suppressed eruptions; scanty urine, breath suffocating; patient can not lie down.

Carbuncle, with stinging, burning pains. Grand remedy to lessen the pain. Good in variola, with great thirst, or none at all.

Aggravation.—Worse in cold weather; chest diseases; night, especially after midnight; overheated, closed rooms are insupportable.

Amelioration.—Pressing relieves headache; washing in cold water relieves skin affections; likes the open air.

APOCYNUM CANNABINUM.

Indian Hemp.

Habitat, America. Tincture of the fresh root, Class III.

Through the cerebro-spinal nervous system, Apocynum has three special centers of action:

- I. MUCOUS MEMBRANES. *Increased Secretion.*
- II. SEROUS MEMBRANES AND CELLULAR TISSUE. *Dropsy.*
- III. SKIN. *Diaphoresis.*

Mucous Membrane.—Upon the mucous membrane of the gastro-intestinal canal, through the pneumogastric nerve, Apocynum produces increased secretions; violent nausea and vomiting, with increased alvine discharges. It is a powerful emetic and cathartic.

Kidneys.—Here not only the mucous membrane is affected, but the whole vascular system of the kidney; the increased blood-pressure is very great. There is no destruction of the mucous epithelium, nor traces of blood in the urine. The first effect of the drug is to produce *copious diuresis*; and the secondary effect is, urine *exceedingly scanty*, the kidney remaining in a torpid, passive state; and its greatest therapeutic value is in renal dropsy.

Lungs.—The mucous membrane of the air-passages becomes congested, producing "stuffy" catarrh.

Serous Membrane and Cellular Tissue.—Upon these tissues, Apocynum produces a general dropsical condition of a marked character; as ascites, hydrothorax, anasarca, and great œdema of the legs and feet; and no remedy has been of more value in acute dropsical affections, especially if the renal organs were involved.

Skin.—Here this drug produces copious perspiration; and it is a marked diuretic; or, the skin becomes dry and husky.

Therapeutic Individuality.

"*Dropsy*, in its various forms, is the chief curative sphere of Apocynum; but *renal dropsy* is strictly the proper sphere of its action. *Anasarca, ascites, œdema of the legs, and even hydrothorax,*

may all proceed from suspended action of the kidneys, as an idiopathic affection. When this is the case Apocynum will rarely fail to cure, when no *structural* disease of the kidneys exists. Other dropsies may be temporarily removed or palliated by its use, but not cured. It is this palliative power which gave it the name, among the early physicians, of the 'vegetable trocar,' meaning that its value was similar to that of tapping."—*Hale*.

In *post-scarlatinal dropsy*, with albuminuria and general anasarca, I have made most brilliant cures with the tincture, in from one to five drop doses. The best cures with this drug have been made with the tincture and decoction in from one to two drachm doses.

In dropsies where this drug is called for, there will be always scanty and dark-colored urine.

"All kinds of dropsies, with a sinking feeling at the pit of the stomach; idiopathic, chronic, and asthenic forms of dropsy, connected with a watery, non-albuminous state of the blood, and general debility."—*Hale*.

Ascites, with bruised feeling in the abdomen; sinking feeling at the pit of the stomach, and scanty urine.

Dropsy of the serous membrane; excretions diminished, especially the urine and sweat; acute inflammatory dropsy; great thirst, but water causes pain and vomiting; rheumatic stiffness, with no organic disease.

"Hydrocephalus; stupor, sight of one eye totally lost; constant motion of one arm, and one leg; sutures of forehead open; stage of effusion.

Head.—"Low-spirited and nervous; stupor; pain in the forehead."—*Hg*.

Acute hydrocephalus; projecting sutures; spasms of the arm and leg, with inflammation of one eye.

Cold in the head; violent coryza; stuffy colds.

Face œdematous, in dropsical effusions.

Digestive Organs.—Tongue coated brownish white, and dry.

Great thirst, but water disagrees, and is vomited up at once.

"Distressing vomiting with menorrhagia; considerable gastric disturbance, after scarlatina."—*Hg*.

"Patient becomes very drowsy, and vomits very often; pulse slow."—*Hg*.

Sense of great emptiness or sinking in the epigastrium.

"Congestion of the liver, of the portal system, with ascites; the abdomen is much distended painful and very sore."—*Hg*.

Ascites with bruised feeling in the abdomen and scanty urine. Copious, watery diarrhœa, or bilious stools.

Constipation is a prominent symptom of this drug.

Urinary Organs.—Excessive, light-colored urination. Urine high colored and extremely scanty, in dropsy.

Puerperal convulsions from uræmia. Dr. Fahnestock has reported five successful cases, when used hypodermically.

"Wetting the bed at night."—*Hg.*

Sexual Organs, Male.—In the male, the scrotum and penis are highly œdematous. Acute hydrocele has been reported cured with this drug.

Sexual Organs, Female.—"Most exhausting menorrhagia, the blood expelled in large clots. A moderate flow of catamenia for a day or two; then it suddenly sets in with such violence that she can not be out of bed."—*Hg.*

"Metrorrhagia, continuous or paroxysmal; fluid or clotted; nausea, vomiting, palpitation; pulse quick, feeble when moved; fainting when raising up."—*Hg.*

Ovarian tumors, monocystic, of short duration, with scanty urine, and great œdema of the legs and feet.

Great œdema of the vulva.

Respiratory Organs.—Can scarcely speak for want of breath, in hydro-pericardium.

"Agonizing difficulty of breathing; can not remain in a recumbent position, in dropsy of the chest."—*Hg.*

Lying down produces violent dyspnœa.

"Great dyspnœa; wheezing breathing, and cough, sometimes loose, but mostly dry; can not walk; dropsy of pericardium."—*Hg.*

Suffocative and incessant dry, hacking cough; sometimes the cough is loose, expectoration copious and watery.

Excellent in hæmoptysis, with nausea and weak pulse.

Frequent palpitation on moving, in dropsy of the chest; pulse small and irregular; vitality greatly weakened.

Extremities.—"Finger-nails of a lead color in heart disease."—*Hg.*

Knees stiff; rheumatism; œdema of the feet and ankles very great in general dropsy; legs extremely weak.

"Involuntary motion of one arm and one leg in hydrocephalus."—*Hg.*

Fever.—Skin dry and husky, especially at night.

Body covered with large, cold drops of sweat; heart disease.

Acute rheumatism, or inflammatory dropsy.

"Skin at first hot and dry, later cold; clammy; general œdema."—*Dr. Jessen.*

In dropsy, when the skin moistens improvement commences.

Aggravation.—At night and in the morning, and sudden atmospheric changes from warm to cold.

Amelioration.—Warm, dry weather, and during the day.

ARGENTUM NITRICUM.

Nitrate of Silver.

Chemical preparation. Aqueous solution, and trituration.

Antidotes.—Chlor. of Sod., Ferrous Sulphide, Merc., Ars.

Through the great vegetative nervous system, Argentum has six special centers of action:

- I. MUCOUS MEMBRANES. *Atony; Destructive Inflammation.*
- II. CARTILAGINOUS SYSTEM. *Destructive Inflammation.*
- III. GLANDULAR SYSTEM. *Induration.*
- IV. BLOOD. *Destruction of Red Corpuscles; Chlorosis.*
- V. SKIN. *Nodular and Vesicular Inflammation.*
- VI. CEREBRO-SPINAL SYSTEM. (MOTOR TRACT.) *Convulsions.*

Mucous Membranes.—Upon the mucous membrane of the stomach and duodenum, the main action of Argentum is to produce atony with great flatulence; but, when given in large doses, it causes vomiting, purging, and violent gastro-intestinal inflammation. The action of this drug upon the abdominal sympathetic is well marked. The liver and kidneys are profoundly affected. After death in chronic poisoning, the epithelial structures of these organs are found in an advanced stage of degeneration. Fatty degeneration of these organs has often been noted. Increased secretion from the intestinal glandular apparatus, with soft, mushy, or copious watery stools; and when this is long continued,

gastro-intestinal catarrh will be produced. The mucous membrane of the liver and kidneys becomes greatly swollen; bile is increased, and albumen is frequently found in the urine. Ulceration of the stomach and duodenum has been produced by Argentinum.

Cartilaginous System.—Especially that of the ears, nose, false ribs, tarsal cartilages, tendons, and ligaments of joints, producing destructive inflammation.

Glandular System.—Upon the salivary glands, testicles, liver, and kidneys, Argentinum produces induration and fatty degeneration of their tissues.

Blood.—Here it produces defective oxidation, destruction of the red corpuscles, anemia, and depressed temperature.

Skin.—The skin becomes an olive or slate color, from deposits of the silver in the tissues. Dr. Pepper says the staining of the skin is always preceded by a dark line upon the gums. It also causes violent itching on various localities, with nodular and vesicular eruptions.

Cerebro-Spinal System.—Silver has a special action upon the cerebro-spinal system, as shown by the tetanic convulsions, paralysis, and insensibility that ensue from large doses. These convulsions, M. M. Charcot believes, are centric, from disturbance of the motor tract; but Prof. H. C. Wood believes that the convulsions are reflex; i. e., excited by the least peripheral irritation, and, also, persisting after the complete abolition of voluntary movements. "The paralysis is general, and is especially seen in the pulmonary branches of the vagi,—death ensuing from asphyxia, with the same condition of the lungs as when their nerves are divided. In the provers, the neurotic effect of the drug was manifest in headache deep in the substance of the brain, with low spirits; vertigo; want of mental power; restless, dreamful sleep, weakness of the spine, with pain in the small of the back; and very marked debility of the lower extremities, almost approaching to paraplegia."—*Dr. R. Hughes.*

Therapeutic Individuality.

Local Application.—Inflammation artificially induced in tissues already the seat of inflammation will lead to a cure of the original inflammation, especially if it be located upon the mucous tissue of the eyes, nose, mouth, pharynx, larynx, urethra, vagina,

and even the gastro-intestinal tract. In inflammation and ulceration of these tissues, the local effect of *lunar caustic*, in the solid or fluid form, is wonderful, to arouse and substitute a healthy for an unhealthy action. When applied in the fluid form, the salt should be dissolved in nitrous ether in the proportion of from *five to twenty* grains of the caustic to *one ounce* of the *ether*. This solution acts more energetically than the aqueous solution, and will readily vesicate. The surgeon could hardly practice without this the most valuable of all caustics.

Head.—Great melancholia and weakness of memory; can not fix the mind upon anything; easily wearied.

"General appearance imbecile; talk very childish; does not work for fear he will do harm, or that he can not stand it."—*Hg.*

"Hypochondriasis, always hurried and anxious; constantly talking about his sufferings; thinks he is neglected or despised by his family; thinks he has softening of the brain; constantly complains of vertigo; incessant mental anxiety; fears to be alone; thinks he will die."—*Hg.*

"Patient can not think, talk, or walk; the head gets dizzy; time seems to pass too slowly; everything done for him seems to be done too slowly."—*G.*

"Vertigo with cerebral congestion; can not walk in the dark, or with the eyes closed, it makes him so dizzy."—*Hg.*

Excessive congestion of blood to the head; it seems enlarged, with dull or throbbing headache (gastric).

Hemicrania, with pressing, throbbing pains, relieved by binding something tightly around the head.

"Boring in the frontal eminence."—*Lembke.*

"Digging, cutting motion through the left hemisphere of the brain, from occiput to forehead."—*Hah.*

"Itching, creeping, and crawling of the scalp, as of vermin, or as if the roots of the hair were pulled; must scratch all the time."—*Hah.*

Ears.—Otalgia, with tearing pains in the ears.

"Buzzing in the ears, with general debility; trembling of the limbs; complete deafness in typhus."—*Hg.*

Chronic otorrhœa, and eczema of the meatus. (Locally.)

Eyes.—The local application of *Argentum nitricum* is of more value than its internal administration; but it is of great value both ways. In torpid conjunctivitis, granular lids, and purulent ophthalmia, an aqueous solution of from five to twenty grains of

the salt to the ounce of water is applied by the use of a camel's-hair pencil.

"The greatest service that Arg. nit. performs is in purulent ophthalmia. With large experience in both hospital and private practice, we have not lost a single eye from this disease, and every one has been treated with *internal remedies*; most of them with Arg. nit. of a high potency, 30th or 200th. We have witnessed the most intense chemosis—with strangulated vessels, most profuse purulent discharge, even the cornea beginning to get hazy and looking as though it would slough—subside rapidly under Arg. nit. internally. The subjective symptoms are almost none; their very absence, with the profuse purulent discharge and the swollen lids, from a collection of pus in the eye, or swelling of the sub-conjunctival tissue of the lids themselves, indicates the drug (Apis, Rhus)."—*A. and N.*

"Acts especially upon the ciliary muscle of the eye, producing intolerance of light, dilated pupil, from want of accommodation."—*Dr. Woodyatt.*

"Eyes red; shuns light; worse in warm room, better in cool air."—*Hg.*

Acute and chronic conjunctivitis, in its most aggravated form; lids granulated, with great secretion of mucus. (Internally and locally.)

Ciliary blepharitis from being over a fire; better from cold air and cold applications.

Lids crusty, swollen, very sore and thick; œdema of lids. Syphilitic ophthalmia, especially iritis.

Of great use in ophthalmia neonatorum. Keep the eye clean with milk and water; this is imperative.

Face.—Looks prematurely old; sunken, pale, bluish, leaden color, or yellow, dirty looking.

"Prosopalgia; infra-orbital neuralgia, left side."—*Hg.*

Nose.—Acute coryza; discharge like boiled starch.

Ulceration of the septum, with discharge of pus and blood, with loss of smell (syphilitic). (Locally and internally.)

Mouth.—Toothache, aggravated by cold water; teeth black in typhoid fever; gums tender, and bleed easily.

"Tongue red, painful, papillæ erect, prominent; tongue dry, hard as a chip, and black like the teeth (typhoid); red streak down the middle of the tongue; tongue coated white or yellow-

white; trembling, dry tongue; tongue furred, with clean edges (dyspepsia)."—*Hg.*

Aphthæ of the tongue and mouth. (Excellent locally.)

"Chronic angina; uvula and fauces dark red; thick, tenacious mucus in the throat, obliging constant hawking."—*Hg.*

"Sensation as if a splinter were lodged in the throat; swallowing very difficult and painful, as if something were lodged there."—*Hg.*

Appetite.—Appetite fair, or complete loss of appetite. Great desire for sugar or sweet things.

Most all gastric affections are accompanied by belching.

Stomach.—Great distention of the stomach, with violent belching of gas, from atony of the gastric mucous membrane.

"The stomach seems as if it would burst with wind, accompanied with great desire to belch, which is accomplished with difficulty, when the air rushes out with great violence."—*G.*

Belching of wind affords marked relief.

"Painful swelling of the pit of the stomach, with great anxiety."—*Dr. J. O. Mueller.*

"Pain immediately after eating, and continuing as long as the food remains down; vomiting in about one hour; gastric ulcer, and dyspepsia; pain after every meal, with much belching and great hypochondriasis; the pain often extends to the heart, producing palpitation and intermittent pulse."—*Hg.*

Dyspepsia; stomach greatly distended, with violent palpitation of the heart by spells, and an intermittent pulse.

"Incessant vomiting of food, with a smooth, dry tongue, apparently destitute of papillæ; awakens at midnight with oppression at stomach as from a heavy lump, causing vomiting of glairy, stringy mucus."—*Hg.*

The vomited matter often tinges the clothes black. Gastrodynia, pain radiating in all directions; increases and decreases gradually, with excessive flatulence.

Inflammation and ulceration of the stomach; great pain in the epigastrium, extending to heart and liver.

Liver.—"Great tension, as from a band around the hypochondria; region of liver very sensitive to pressure; cutting like knives in the liver, with gastralgia."—*Hg.*

Abdomen.—Great distention of the abdomen from flatulence, in dyspepsia, with griping in the bowels.

Loud rumbling from flatulence, with sudden stitches.

Stool.—"After taking fluid, it appears as though it were running straight through the intestinal canal without stopping; stools of green, fetid mucus, voided with much flatulence."—*G.*

Acid stools, from early morn till noon; desire for stool continually; stools bilious and watery; in fleshy people.

Cholera infantum; stools as soon as he drinks, runs straight through.

"Stools of green, fetid mucus, with noisy flatulence at night; green, brown, bloody, sour, slimy; and sour taste."—*Hg.*

"Dysenteric stools, consisting of masses of epithelial substance, connected by muco-lymph and colored red or green, shreddy, frequently passed with severe bearing-down in the hypogastrium. On rising, sense of weight in the back. Advanced stages of dysentery, with suspected ulceration of the bowels."—*Dr. J. C. Morgan.*

Constipation and diarrhœa, alternate; in dyspepsia.

Bleeding hæmorrhoids, with burning and tenesmus.

Urinary Organs.—Urine is voided unconsciously, day and night, but more at night; highly colored and scanty.

"Paralytic debility of the lumbar region and kidneys; urine passes unconsciously and uninterruptedly."—*Hg.*

"Urine burns while passing; the urethra feels swollen, and as if the last drop remained behind."—*Hg.*

Bloody urine, from gravel, with nephritic colic.

Sugar in the urine, with much flatulence and indigestion.

"Sub-acute nephritis, great hæmaturia; the hemorrhage resisted all kinds of treatment. Oxide of silver, three half-grain doses, cured."—*T. Cole, M. D.*

Sexual Organs, Male.—Impotence; organs shriveled, with feeble erections, and want of sexual desire.

Gonorrhœa in second stage, with priapisms; dysuria; bloody urine, and muco-purulent discharge. (Injections of from one to five grains of the salt to one ounce of water.) In the first stage, of twelve hours' duration, injections will frequently abort it; but the physician seldom sees the case so early.

Ulcers and chancres on the prepuce, glans, and in the urethra, are frequently greatly benefited by the use of this caustic in the solid form; but usually the application of Calomel is far better.

Orchitis from suppressed gonorrhœa. (Internally; and externally the ethereal solution.)

"Urethra swollen, hard, knotty, and painful."—*Hg.*

Chronic gleet; injections will often lead to a cure.

Sexual Organs, Female.—Much pain of a cutting character in the right ovarian region, with metrorrhagia. Menses much too early, too profuse, and last too long.

"Uterine hemorrhage, with much trouble in the head, greatly aggravated by motion; bleeding ulcers of the womb."—*G.*

"Coition painful, followed by bleeding from the womb."—*Hg.*

"Granulations on the cervix uteri; uterus softened; pains like slivers in and about the womb, excited by motion."—*Hg.*

Uterine ulceration; bleeding from the least touch; with indigestion and great despondency. It should be used locally and internally.

In prolapsus uteri, with ulceration of the os and cervix, it should be used internally and locally, especially if it be accompanied with profuse, acrid, yellow, or bloody leucorrhœa.

Pruritus vulvæ. In this great affliction, no remedy can take the place of Arg. nit., when applied locally in the form of the ethereal solution, or the solid *porte caustique*.

Chancre of the vulva, vagina, or uterus. (Applied locally.)

Pregnancy.—"During pregnancy, stomach feels as if it would burst with wind; head feels expanded."—*Hg.*

"Puerperal convulsions; spasms preceded by a sensation of general expansion, mostly of the face and head; after an attack she lies quiet; but, before another, she becomes very restless; has a presentiment of an approaching attack."—*Hg.*

Disposed to abortion, with many gastric symptoms.

Nipples become cracked and very sore. (Locally.)

Suckling infants die early with marasmus and diarrhœa.

Scirrhus mammæ; painful to touch, with dyspepsia.

Larynx.—Chronic laryngitis; voice hoarse, or complete aphonia; larynx raw and sore; especially in singers, when raising the voice causes coughing.

"Tickling, itching, and burning in the larynx, with rattling of mucus, removed in small lumps by cough."—*Hg.*

Ulceration of the larynx affecting the cartilages (syphilitic).

Respiration.—Excessively offensive breath.

"Motion, going up stairs, or bodily exertion cause asthmatic attacks; face congested; palpitation; chronic form; many people in the room seem to take away his breath."—*Hg.*

Flatulent, dry, spasmodic asthma; great constriction and spasms of the respiratory muscles; can not talk; drinking suffocates him. In people withered and dried up from disease.

"Awakes with suffocation; deep inhalation takes away the breath."—*Hg.*

Cough.—Dry cough, only in the day-time.

"Sub-acute pleuritis; dry, hard cough; left side very sore."—*Hg.*

Moist, tough cough; expectoration muco-purulent, and sometimes mixed with blood; or pure blood, coughed suddenly.

"Nightly dry cough; or some mucus streaked with blood; aphonia."—*Hg.*

"Suffocating cough, at first dry, later loose; belching or straining to vomit during the cough; worse from tobacco smoke."—*Hg.*

"Feels like a bar of iron around her chest; dyspepsia."—*Hg.*

Chronic pleurodynia; sub-acute pleuritis in phthisis.

Violent pain in left side, from dyspepsia.

Heart.—Palpitation of the heart; beats from three to seven times, then loses one beat; violent palpitation, from mental emotion or sudden muscular exertion, reflex from the stomach; dyspepsia.

"Anxiety, with palpitation and throbbing through the whole body, especially head and abdomen; when sitting quietly, he frequently thinks his heart stops beating; suddenly he will feel two strong beats, apparently arising from the stomach and passing into the head; hypochondriasis."—*Hg.*

The palpitation and irregular action of the heart, with despondency, is a marked symptom of *Argentum nit.*; and it is all sympathetic from dyspepsia.

Back.—Much pain in the small of the back; severe when rising from a seat; better when walking.

"Backache, especially at night, with great weakness of legs, in prolapsus uteri."—*Hg.*

The spine is sensitive to the touch, with nocturnal pains.

Upper Limbs.—Drawing pains in the shoulders.

"Pain extending from arms to fingers; hands tremble; nails blue, and numbness of the finger-tips."—*Hg.*

Pain in the joints aggravated by motion; arthralgia.

Lower Limbs.—Great debility, particularly of the lower extremities, with much chilliness.

"Paraplegia from debilitating causes."—*Rauc.*

"Trembling; paralysis of the extremities; tormented with formication of arms and legs; limbs, especially his knees, start up at night, waking him."—*Hg.*

Staggering gait, with pain in the back; cannot walk with eyes closed, or in the dark; locomotor ataxia.

"Legs feel as if made of wood, or padded, with insensibility to touch; diminished warmth; legs and hands tremble."—*Hg.*

Edema of the legs and feet; ascites, from disease of the liver.

Nerves.—Periodical trembling of the body; restlessness; continued motion; nerves greatly unstrung; convulsions, preceded by great restlessness; epilepsy, from fright, during menstruation; at night; pupils always dilated for a day or two before.

Excessive debility; can hardly walk; apathetic.

Fever.—Great chilliness (it predominates); slight fever, followed by sweat, especially at night; many gastric symptoms.

Skin.—Emaciation; much withered; bone affections; chronic syphilis, with osteocopic pains.

Syphilitic induration of the cervical glands; syphilitic papulæ.

"Skin from a blue-gray to a bronze, or real black."—*Hg.*

In scarlatina, bluish-black eruption.

Erysipelatous bed-sores, with bloody incrustations; black on sacrum; excrescences on the skin.

In abrasions, bed-sores, and ulcers of the skin, the local use of Argentinum nit. is of great value. Its application forms an albuminate, which coats the surface with a thin layer, and protects the tissue beneath from the irritation of the air, thereby causing the sore to heal with great rapidity. (Twenty grains to the ounce.)

Aggravation.—At night, in morning; after eating cold food; or cold weather; during rest, and from walking.

Amelioration.—In open air, craves open air; eructations; can not sleep without fresh air.

ARNICA MONTANA.**Leopard's-bane.**

Habitat: Europe, etc. Tincture of fresh root, Class III.

Antidotes.—Camphor, Acids, Vinegar, Ipec.

Through the cerebro-spinal nervous system, Arnica has six special centers of action:

- I. SKIN. *Vesicular and Erysipelatous Inflammation.*
- II. VENOUS SYSTEM. *Stimulating Absorption.*
- III. MUSCULAR SYSTEM. *Paresis and Myalgia.*
- IV. DIGESTIVE ORGANS. *Gastro-Intestinal Inflammation.*
- V. SEROUS MEMBRANES. *Inflammation and Effusion.*
- VI. CIRCULATION. *Accelerated, with Higher Temperature.*

Skin.—Arnica has a powerful action upon the skin and cellular tissue, producing vesicular eruption, and red, inflamed pustules resembling boils. In susceptible subjects, most violent erysipelatous inflammation has been caused by its local application.

Venous System.—Arnica arrests the secretory power of the venous capillaries, and produces a state similar to what we find attending violent contusions; but, when given in medicinal doses, it acts upon these venous capillaries, stimulating their absorbent power. It becomes, thus, the great remedy in all cases of concussion, sprain, or other sufferings from mechanical violence. It also causes venous hemorrhages from the nose, lungs, and hæmorrhoidal vessels.

Digestive Organs.—Arnica in large doses produces heat in the fauces, increases the flow of the saliva; irritates the stomach, causing nausea and vomiting; and, on the bowels, choleraic diarrhœa, collapse, and death.

Muscular System.—Arnica has a specific action upon the muscles, especially centering upon their fasciæ and tendons, producing irritation and myalgia. Its myotic action is the most prominent of all its effects. Arnica also acts upon the motor nerves, producing paresis of the muscular system to a marked degree.

Serous Membranes.—Arnica acts upon the venous capillaries of secretion in the serous membranes, causing stagnation and inflammation, which soon passes on to effusion into the cavities; hence its usefulness to produce absorption in dropsical effusions, effusions of serum which occur after falls, blows, and extravasations of blood, etc.

Circulation.—In medicinal doses, Arnica increases the action of the heart and arteries, and the frequency of respiration, at the same time elevating the temperature of the skin, with increase of all the secretions. It also has some hæmatic action, not yet fully understood.

Therapeutic Individuality.

Especially adapted to sanguine, plethoric persons, with lively complexions; and to all diseases of a traumatic origin, such as bruises, falls, concussions, strains, etc., involving the muscles and cellular tissue, with sore and aching. Arnica is to a bruise what Aconite is to a chill.

It acts well upon people that are debilitated, with soft flesh and impoverished blood, and burning of the head, with a cold body.

"The true sphere of Arnica is in painful conditions of the cutis vera and subcutaneous cellular tissue, whether traumatic or idiopathic; and its leading characteristic is inflammation of the skin and cellular tissue, with extreme tenderness upon pressure."—*S. E. J. Fraser, M. D.*

"Arnica is more apt than Aconite to spoil a case; it makes a much more profound impression upon the system than Aconite. Its real, culminating action is similar to typhus fever. Brilliant results have frequently been obtained with Arnica in the worst forms of typhus. No Arnica should be used except that made from the root."—*Hg.*

Head.—Comatose, soporous, stupid state; lies as if dead; from concussion of the brain or apoplexy.

"Stupor, with involuntary discharge of fæces. Typhus."—*Hg.*

Very forgetful; absent minded; thinks rightly but uses the wrong word; sits as in a waking dream. Typhus.

"Muttering delirium; says there is nothing the matter with him."—*Hg.*

"Hypochondriacal, hopelessness; fears of being struck; has a horror of instant death; excitable and timid."—*Hg.*

"Giddiness, and incapacity for all exertion; vertigo when shutting the eyes, or when assuming an erect position."—*Hg.*

Stitches in the head, especially temples and forehead.

"Pressive headache as if the head were being distended from within outward; the pain seems to arise from something soft in the vertex, with drawing in the vertex and occiput, and tearing toward the temples."—*Hg.*

"Meningitis after traumatic injuries, such as concussions, bruises, falling, concussion of the brain, etc., when suspecting exudation of blood, fibrine, or pus. In such cases, we find great stupor, and partial paralysis of the tongue, the oculo-motors, the iris, or the limbs. Apply externally warm cloths saturated with dilute tincture of Arnica. Use also internally."—*Hg.*

Meningitis granulosa infantum, with serous exudation; excessive thirst; no hydrocephalic cry; with profuse urination.

"Apoplexia sanguinea; loss of consciousness, with involuntary evacuations from bowels and bladder; paralysis one sided; pulse full, strong; stertor; sighing and muttering."—*Hg.*

"The face, or head alone, is hot; body cool."—*Rauc.*

"Burning or hot spots on top of the head; head feels too large."—*Hg.*

Eyes.—"Arnica has been employed with marked results in a variety of eye troubles resulting from trauma; sometimes applied locally, dilute tincture, and given internally. A few cases of sub-conjunctival ecchymosis, resulting from whooping-cough, or from injuries, where Arnica acted more promptly than Hamamelis; the relaxed condition of the blood-vessels, and too fluid condition of the blood which predisposes to these hemorrhages, is often cured by Arnica."—*A. and N.*

Retinal hemorrhages; the clots have often been absorbed by the use of Arnica; also paralysis of the muscles from trauma.

"Inflammation of eyes, with suggillations from trauma."—*Hg.*

"Dilated pupils, with sensitiveness to the light, double vision."—*Hg.*

Ears.—Mechanical otitis, with suppuration; discharge of pus and blood.

"Hard hearing from concussions, with much buzzing noises; sensitive to loud sounds; swelling of the parotid glands."—*Hg.*

Face.—"Swelling of the cheek, with throbbing, twitching pains, swollen lips, and heat in the head."—*Jahr.*

"Face deep red and hot, in typhus, apoplexy, and in meningitis."—*Hg.*

"Right cheek drawn to one side in apoplexy."—*Hg.*

Nose.—"Epistaxis, from trauma; after exertion; from washing face; blowing the nose; whooping-cough, and typhus."—*Hg.*
Swelling of the nose, with much sneezing (boils).
Excellent to arrest nosebleed, where there is much tingling.

Mouth.—Putrid, slimy taste; tongue coated yellow.

"Dry, almost black tongue, in typhus."—*Hg.*

Gums inflamed and very sore; putrid smell from the mouth.

"Mouth dry with much thirst."—*Hg.*

"Toothache, the roots of the teeth feel as if they had been scraped; face and cheek hot and swollen."—*Hempel.*

Stomach.—"Putrid eructations as from rotten eggs."—*Jahr.*

Total want of appetite, loathing at the sight of food.

"Feeling of nauseous repletion after eating."—*G.*

Sensation of soreness in the stomach, with belchings, tasting like rotten eggs.

"Myalgia of the stomach; the pain comes on immediately after, often during, eating; the patient is weak and lax of fiber, and often has myalgia elsewhere."—*Hughes.*

Vomiting of blood, from mechanical injuries.

Much distention of the stomach with wind; tastes putrid.

The liver is sensitive to pressure, with stitches in hypochondrium.

Abdomen.—Tympanitic distention of abdomen, with grinding pains.

Stool.—"Frequent urging to stool, with severe pressure at the anus; offensive flatus smelling like rotten eggs."—*Hg.*

Stools of mucus, blood, and pus, where the rectum is involved.

"Stool and urine involuntary during sleep, in fevers."—*Hg.*

"Scanty, slimy, dark-colored, bloody stools, in dysentery; the marked indication is the long intervals between stools, viz., from four to six hours, with bruised pain in the anus."—*Hg.*

Prolapsus ani in relaxed and weakened constitutions.

Urinary Organs.—Brown, high-colored urine, loaded with the phosphates; bloody urine from trauma.

"Constant urging, while urine passes involuntarily in drops; frequent attempts to urinate; tenesmus in dysentery."—*Hg.*

Renal Colic; inflammation from passage of calculi, with piercing pains in kidneys and along the ureters; hæmaturia.

"Involuntary urination at night during sleep, in typhus."—*Hg.*
Urine very acid, burns and excoriates.

Sexual Organs, Male.—Inflammation from trauma.

"Hydrocele caused by a bruise."—*Hg.*

Erysipelatous inflammation of scrotum; phymosis, parts bruised and much swollen. (Use cerate.)

Sexual Organs, Female.—Menses too frequent and too profuse. Metrorrhagia, after coition or labor; blood red and in clots. Pain as if strained in ovarian region; can not walk erect.

"Metrorrhagia, blood feels hot as it escapes from the vulva; hard, forcing-downward pains; face red, hot, while the body is cool."—*G.*

"Prolapsus uteri from trauma, with a sore, bruised feeling in uterine region; can not walk erect."—*Hg.*

Pregnancy.—Threatened abortion, or abortion from traumatism; parts feel sore and bruised.

After severe labors, always give Arnica internally, and use it locally on the genitalia, to relieve the sore and bruised parts. By doing so, you will prevent pyæmia and puerperal fever, and in a great measure prevent the after-pains.

"After-pains violent; return while suckling."—*Hg.*

For sore nipples, use the cerate.

Mastitis from bruises; mammæ hard and tender. (Use it locally and internally.)

Respiratory Organs.—"Hoarseness caused by over-exertion of the voice in persons who constantly speak or sing."—*Dr. Kendrick.*

Dyspnœa; suffocative breathing; from dropsical effusions.

"Asthma from fatty degeneration of the heart."—*Hg.*

Hæmoptysis from trauma, with soreness of the chest.

Hard, dry, racking cough; tickling in the trachea, causing the cough day and night.

"Whooping-cough; child cries before the paroxysm as though in fear of the soreness it will cause; cough causes bloodshot eyes; nosebleed; expectoration of clots of blood."—*Hg.*

"Pleurisy, when the exudation consists of coagulable lymph or serous exudation."—*Hughes.*

"Myalgia of the intercostal muscles after great exertions, with a sensation as if all the ribs were bruised; short breath; pain in the chest with anxiety."—*Raue.*

"Pleurisy from mechanical injuries; must continually change position, bed feels so hard."—*Hg.*

Dropsy of the chest from traumatic inflammation.

Heart.—Palpitation of heart from slight exertion in lax, debilitated people.

"Stitches in the cardiac region, with irritable heart."—*Hg.*

"Fatty degeneration of heart."—*Hg.*

Pericarditis, with effusion, from trauma; patient can not lie down; feels faint, with much dyspnoea.

Back.—Traumatic inflammation of spine; the vertebræ are very sensitive to pressure.

"Violent spinal pain, as from sudden rising after long stooping; cervical muscles so weak can hardly hold the head up."—*Hg.*

Nephritis from trauma, with much pain in lumbar region.

Extremities.—Arms feel weary, as if bruised, and the joints as if they were sprained.

"Can not lift right arm, in apoplexy."—*Hg.*

"Boring, tearing pains, shifting from the right hip-joint to various parts; worse at night, can not find an easy position, bed seems so hard."—*Hg.*

"Arthritic pains in foot, worse toward evening; fears passers-by may strike it; big-toe joint red, feels sprained; much pain in the tarsal joints."—*Hg.*

Hygroma patellæ, from traumatism.

"Carbuncle on the thigh; feels as if bruised."—*Hg.*

"Paralytic pain in all joints; limbs ache as if beaten."—*Hg.*

Corns. Pare them, and apply Arnica externally.

Great sinking of the strength; in fevers.

Skin.—Great tendency to small boils, and ecchymosis on various parts of the body. Arnica applied locally will often arrest a boil.

"Hot, hard, shining swelling, from stings of insects."—*Hg.*

Erysipelatous inflammation, with vesicular eruption.

Bed-sores; skin œdematous; petechiæ; ecchymosis, with sore, bruised feeling (locally and internally); inflammation of the skin and cellular tissue; very tender on pressure, and the bed seems too hard, has to change position often.

In skin diseases, and all febrile diseases, the great characteristic indication for Arnica is, the bed or couch on which he lies feels too hard; complains constantly of it, and keeps changing from place to place, he feels so tired, sore, and bruised.

Fever.—Hæmatic fevers, attended with the greatest indifference; putrid breath and much prostration.

In intermittents, the chills, heat, and sweat are all well marked, the sweat smelling very sour. The head feels hot when the body is cold, with great thirst during the chill and heat.

Traumatic fevers, with suggillations on the body.

"Heat in oft-repeated short attacks."—*Hg.*

Septicæmia, with low typhoid symptoms.

Erysipelatous inflammation, from trauma, nervous form.

"In fevers from over-exertion and traumatic causes, or of low type, with apathetic condition, as typhoid and hectic."—*Jessen.*

"Arnica will check the hemorrhages of mechanical violence; quiet the nervous startings of a fractured limb; obviate the danger of reaction in concussion of the brain and sudden apoplectic extravasation. It seems, moreover, to cover the whole remote effects of an injury. Give it to one whose frame can not forget the shock of a far-back railway accident, and you and he will be alike delighted with the effect."—*R. Hughes, M. D.*

Aggravation.—From exertion; at night; cold, damp weather; at rest, from wine, and a long sleep.

Amelioration.—From contact and motion; during the day, and in the open air.

ARSENICUM ALBUM.

Arsenious Acid.

Chemical preparation. Trituration and Aqueous solution.

Antidotes.—Milk, Albumen, Emetics, Dialyzed iron, Ant., Iod., Nux vom., Cupr., Chin.

No known remedy so quickly strikes down and annihilates the life of the ganglionic nervous system as does Arsenicum. Through this system, every organ and tissue in the body is more or less affected; but the most of its action is spent upon the ten following tissues:

- I. MUCOUS MEMBRANES. *Destructive Inflammation.*
- II. SEROUS M. *Œdematous Inflam.; Copious Drop. Effusions.*
- III. KIDNEYS. *Fatty Degeneration; Albuminuria.*
- IV. SKIN. *Eczema; Gangrene; General Anasarca.*
- V. BLOOD. *Disintegration; Hemorrhages; Serous Effusions.*
- VI. HEART. *Fatty Degeneration; Motor Paralysis.*
- VII. CIRCULATION. *Vaso-Motor Paralysis; Asthenia.*
- VIII. LIVER. *Fatty Degeneration; Disorganization.*
- IX. LUNGS. *Asthma; Congestion; Malignant Catarrh.*
- X. CEREBRO-SPINAL S. *Motor and Sensory Paralysis; Neuralgia.*

Mucous Membranes.—Arsenic produces destructive inflammation in every part of the body where mucous membrane is found; but, through the *solar plexus*, it especially centers upon the gastro-intestinal mucous membrane, affecting particularly the mouth, throat, stomach, duodenum, and rectum, producing congestion and destructive inflammation, with a thin, ichorous discharge, tending to malignant ulceration, and accompanied with a low fever of a typhoid form. We have aphthæ of the mouth, ulceration of the stomach, and sometimes gangrene of the rectum and anus; nausea and obstinate vomiting, with a slimy, bloody or watery diarrhœa, and complete prostration of all the vital forces.

"The gastro-intestinal inflammation is greater in degree and more speedy in taking place when Arsenic is applied to a wound, than when taken into the stomach. The inflamed parts are, in general, universally red; at other times they are red only in spots. The principal vessels leading to the stomach and intes-

tines are much dilated, and turgid with blood; but the inflammation is usually confined to the mucous membrane of these viscera, which assumes a florid red color, becomes soft and pulpy, and is separable without much difficulty from the cellular coat, which presents its natural appearance. In some instances, there are small spots of extravasated blood on the inner surface of the mucous membrane, or immediately beneath it (this occurs independently of vomiting), and a thick, yellowish, and tenacious exudation, formed entirely of white corpuscles, and constituting a false membrane, under which the mucous membrane is found dotted with ecchymosis, and for the most part destitute of epithelium. Such ecchymosis is also found uniformly under the endocardium of the left ventricle, and frequently under the other serous membranes. A very important conclusion is that the intestinal lesions do not result from an elimination of Arsenic by the intestinal mucous membranes; for careful chemical investigation discloses only a trace of Arsenic in the contents of the bowel. The vascularity of the gastro-intestinal mucous membrane, and its hyper-secretion, are attributed to the action of the poison upon the blood-vessels themselves."—*Prof. Boehm.*

To get a full understanding of Arsenic, we will have to study its toxic effects; and here we will learn that it is a double-acting remedy; that is, it reaches over and acts profoundly upon the cerebro-spinal system, as well as the ganglionic. First, we will consider—

Arsenical vapors from fumes of tapers and candles and from burning Arsenic upon coals, the dust from sweeping, and the vapors from walls hung with bright green paper. The body of the paper and the paste which attaches it to the wall are composed of materials very susceptible of putrescent fermentation, and the Arsenic becomes volatile in the form of Arseniureted hydrogen. The following is a catalogue of symptoms caused by this form of poisoning:

"First, irritation of the mucous membrane, causing vomiting, diarrhœa, and permanent indigestion, severe coryza, ulcerated throat, bronchitis, spasmodic cough and asthma, a scalded condition of the lips, tongue, and cheeks, with inflammation of the conjunctiva and eyelids; severe bilious and feverish attacks; palpitation of the heart; pains in the spine and limbs, the joints swollen and stiff; the skin rough and scaly. Excessive irritability, depression and prostration; also giddiness, headache, acute ear-ache, and neuralgia; bleeding at the nose; frightful screams, hysterical attacks, loss of memory, cramps, numbness, spasms,

and convulsions. Many wall-papers besides the green, contain Arsenic, especially some blue colors produced by 'Arsenical cobalt.' Mauve and even red paper contains Arsenic. Miners and other workmen in Arsenic suffer from the poisonous exhalations. The diseases engendered are chronic, often fatal."—*Stille*.

Internally.—"In small doses of from 1-15 to 1-20 of a grain, Arsenic excites a sense of warmth in the stomach and bowels, increases the appetite, and, in some degree, the fecal and urinary discharges. According to Vogt, this stimulant effect is shared by all parts of the system. The skin is warmer, the pulse fuller and more frequent, the muscular system more active, and the whole organism invigorated, freer and lighter in its movements, and even the mind improves in activity and power. In doses such as occasion no sensible phenomena, or only after the lapse of many days, Arsenic seldom produces chronic poisoning; on the contrary, digestion appears to be permanently fortified, as when true tonic medicines, and especially Cinchona, are administered." "Among recent authorities, Waher attributes to Arsenic nearly all of the virtues ascribed to it by Vogt. It is well known, says this author, that old and worn-out horses recover their appetite, activity, and strength, under the operation of small doses of Arsenic; and in Vienna, the grooms are accustomed to mix a small quantity of Arsenic with the feed given to horses, and to attach a portion to the animal's bit, for the purpose of producing a bright aspect of the skin, roundness and elegance of the form, and foam at the mouth. The medicine is said to put them in a singularly good condition to perform long journeys, particularly in a hilly country; but, when the use of it is left off, the horse gets thin, loses his freshness, and becomes dull.

"In Lower Austria and Styria, there exists among the peasantry, the singular habit of eating Arsenic. These poison-eaters have a double aim; first, they wish to give themselves, by this dangerous habit, a fresh and healthy appearance, and a certain degree of *embonpoint*. Many of the peasant girls, and even the men, have recourse to this expedient from coquetry and a desire to please; and it is remarkable what success they attain; for the young toxiphagi are distinguished by the freshness of their complexion, and by a look of ruddy health. But many of these young people die from the effects of Arsenic-eating. When the practice is stopped, emaciation ensues. They fall into the habit at the early age of fifteen, and continue it until seventy or seventy-six. The majority of Arsenic-eaters are males. They are generally strong,

healthy persons, courageous, pugnacious, and of strong sexual disposition."—*Stille*.

Acute Arsenical Poisoning.—"Immediately after the poison is swallowed, a metallic taste is perceived, with constriction of the fauces. A violent burning pain, which soon becomes excruciating, is felt in the stomach, and gradually extends itself over the whole abdomen, steadily increasing in severity until it becomes intolerable. Retching and vomiting, and cramps of the bowels, ensue, with spasms of the œsophagus and chest, which resemble those of hydrophobia. The thirst is insatiable, but even the mildest drinks cannot be retained; the tongue is generally fissured, hard and dry, although occasionally there is profuse salivation, and the voice is hoarse. There is also tenesmus, with bloody and offensive stool, and retraction of the abdomen. The irritation is propagated to the urinary organs, occasioning, in the male, tumefaction of the penis, and in both sexes strangury. Sometimes the urine is completely suppressed, and sometimes it is mixed with blood. Prof. Christison says that in the female there is burning pain in the vagina, and excoriation of the labia, 'but this does not happen unless life is prolonged beyond three days.' Bachman had previously noticed the pain alluded to, and also profuse menorrhagia, among the symptoms in females. The muscles are spasmodically affected; the skin presents a livid eruption of the species already mentioned. The sense of anguish is unutterable, and sometimes there is delirium. The breathing is oppressed. The pulse is irregular and intermittent, and is sometimes rapid; the action of the heart is tumultuous. A consuming fire appears to prey upon the vitals, while the skin is everywhere pale, cold, shivering, and clammy. The features are sunken and sharp; if vomiting occurs, it is convulsive and affords no relief. Exhaustion of mind and body, prostration and despair, with anxious restlessness, generally attend this stage of the attack. On the approach of death, spasm yields to general resolution, the pulse grows slow and feeble, and the urine and fæces are voided involuntarily; but sensibility and consciousness are lost only in the last moments of life.

"The duration of the symptoms is variable, and may be stated, in general, at from six to twelve hours; but occasionally they last for several days. Sometimes, also, though rarely, a fatal termination takes place almost immediately after the poison is swallowed, and without other symptoms than slight fainting fits. Dr. Christison has collected fourteen or fifteen cases of acute Arsenical poisoning, in which the signs of inflammation, after death,

were slight, or altogether wanting, and the fatal issue occurred in five or six hours, with symptoms denoting a powerful debilitating influence on the circulation, or on the nervous system.'

"Even when recovery follows the complete development of acute Arsenical poisoning, it is seldom perfect. For months or even years, the joints of the limbs remain swollen and stiff, so as to render walking difficult and painful; the digestive organs for a long time continue irritable and feeble, and all of the functions of the nervous system are impaired. In some cases, there is more or less paralysis of the upper or lower extremities, and in others gangrenous ulcers attack the legs. Arsenical paralysis most frequently affects the lower limbs first, extending gradually to the arms; but it is more permanent in the legs, continuing for months or even years. It is accompanied with cramps, spasmodic movements, numbness, and formication. The cutaneous sensibility is impaired, and the patient generally complains of coldness in the parts affected."—*Stille*.

Serous Membranes.—Sub-acute inflammation, followed by copious serous effusion, affecting most frequently the pleura, pericardium, and next, the peritoneum and arachnoid. To this may be added its action upon the cellular tissue, producing œdematous swelling, and great anasarca of the whole body.

Kidneys.—The kidneys are powerfully influenced by Arsenic. Their secretion is diminished, and sometimes entirely suppressed; tested by heat, it is found loaded with albumen. The microscope shows renal epithelium, fibrine-casts, fat, and blood-corpuscles; and the kidney has all the evidences of fatty degeneration. The albuminuria is explained by the fatty degeneration of both the kidneys and liver.

Skin.—It especially acts upon the epidermis, leaving the dermis unaffected. Miss Dr. A. Nunn, of Boston, has given us the microscopical action of Arsenic upon the epidermis. It is practical and to the point. She says: "An examination of a series of sections taken from different parts of the body of the frog at different intervals after the hypodermic introduction of the poison, shows that the general effect of Arsenious acid on the epidermis is to cause a degeneration and partial solution of the protoplasm of the cells, whereby, (1) the whole epiderm becomes loosened from the subjacent derm; (2) the cells of the Malpighian layer become incoherent, so that the whole layer collapses, and its well-known architectural features become obscured; and (3) the intermediate

layer separates from the Malpighian layer below, and at times from the corneous layer above. In no case have I ever seen the Malpighian layer actually cast off during the frog's life; it remains attached loosely to the derm.

"Arsenic first attacks the lower, or inmost, portion of the epiderm, and then advances from the derm outward. The cells of the Malpighian layer next to the derm (the columnar layer) are composed of more active and irritable protoplasm than those of the rest of the derm, the irritability diminishing from within outward in proportion as the metamorphosis of the protoplasm into keratin becomes more and more pronounced. All the facts go to prove that the changes are the result of the Arsenic acting directly on the epidermic cells themselves; in fact, a lethal stimulation, by which the destructive stages of the metabolism of the cells are hurried on beyond the reparative power of the constructive stages."

Miss Dr. Nunn found that Arsenic affects the cornea similarly to the skin, but in a manner not so strongly marked.

Clinical practice has confirmed these observations. Arsenic possesses little or no influence upon diseases seated in the deeper structures of the skin; but, where the superficial parts are involved, the action of this remedy is all that could be desired.

The skin becomes dry, dirty looking, brawny; eczema, urticaria; skin covered with vesicles; desquamation, with tenderness of the palms of the hands and soles of the feet. It has also produced pityriasis, lichen, and leprosy. In fact, Arsenic produces about every form of skin disease.

Hair.—Arsenic has caused the hair to fall out over the whole scalp. In a case of poisoning, two weeks after the patient had apparently recovered, "the face, head, hands, and feet were swollen, and the whole surface of the body was of a bright red color. The skin partially desquamated and was tender to the touch; this was followed by an attack of psoriasis which extended over the whole body. The hair of the head, the eyebrows and eyelashes fell off, as did also the nails."

Blood.—The changes produced in the blood are most marked and profound. "The microscopical and chemical peculiarities of this fluid under the action of Arsenic are of great importance in relation to the changes which the solids undergo; to the hemorrhages from the nose, the digestive canal, the urinary passages; to the ecchymosis found in the lungs, pleuræ, pericardium, and heart; and to the occurrence of dropsy. The serous effusions

and chronic anæmia as the consequence of prolonged exposure to Arsenical influences, furnish ground for believing that Arsenic, like Mercury, tends to disintegrate the blood-corpuscles, to diminish the proportion of fibrin, and possibly, also, to attack still more directly the vital principle upon which the normal qualities of the blood depend.

"In medicinal doses, it radically modifies the function of nutrition, and hence is fully entitled to be ranked as an alterative. It is held by some authorities to directly restrict oxidation of the tissues, particularly of the fat. According to Schmitt, it retards the waste of the red blood-corpuscles, and diminishes the exhalation of carbonic acid and the excretion of urea. Stuerzwage estimated that the rate of loss by tissue-decomposition was diminished from twenty to forty per cent under the operation of Arsenic."—*Stille*.

Drs. Cutter and Bradford say: "Arsenic given in health causes a progressive decrease of the number of the red, and especially of the white, corpuscles. In simple anæmia, on the contrary, there seems to be an increase at first of both red and white corpuscles. After a certain point, there is a steady diminution of both."

Heart.—Arsenic has a special and profound action upon the heart, producing various lesions, such as endocarditis, hypertrophy, fatty granulation and degeneration, with pain, dyspnoea, and palpitation of the heart; cardiac dropsy. In moderate doses, it first strengthens the pulse, but soon renders it slow and weak, and at last arrests the heart's action; and then galvanic stimulation excites it only to imperfect contraction. This protoplasmic poison stops the function of the heart, by affecting all its structures, its nerves, its ganglia, and its muscles. Add to this its action upon the vaso-motor nerves, producing vaso-motor paralysis with a general state of asthenia, and we see at once, why the arterial tension is so lowered and prostrated.

Temperature.—Toxic doses first elevate the temperature, and then depress it. Medicinal doses reduce the temperature.

Liver.—Post-mortem examinations have revealed the fact that the liver contains more of the Arsenic in poisoning than any other organ; and it has produced fatty degeneration, jaundice, and all the lesions tending to disorganization of this organ.

In induration, atrophy, cirrhosis, softening, fatty degeneration, and malignant jaundice, Arsenic has been of untold value.

Lungs.—Through its action upon the pneumogastric nerve, this remedy has a specific action upon the lungs, producing congestion of all the air-passages, the lungs being gorged with blood. Accompanying this congestion, we have spasms of the muscles of the lungs, with violent dyspnœa, and the worst forms of asthma.

Arsenic especially acts on the mucous membranes of the air-passages, producing tracheo-bronchial catarrh. The most useful sphere of this remedy in lung diseases, will be found in neuro-bronchitic asthma. Here it has won many a laurel for Homœopathy.

Cerebro-Spinal System.—The neurotic action of Arsenic, reaching over and acting so specifically and profoundly as to disorganize and destroy the life of the cerebro-spinal, especially the spinal system, is most remarkable. It is one of the few remedies that act upon all the tissues of the body. It is a protoplasmic poison, destroying the functional activity, first of the central nervous system, second of the nerves, and, third and last, of the muscles. It seems to act at first, the most powerfully upon the posterior portion of the cord, as shown by the paralysis of sensation and reflex action, and second of voluntary power. Autopsies show that the spinal marrow is always affected, especially the lower part of it, and through this all the nerves of the extremities. Arsenical paralysis "is nearly always paraplegic; though a case of Arsenical hemiplegia is recorded, in which the laryngoscope detected paralysis of the vocal cord on the affected side. The arms are affected nearly as often as the legs. Cramps and contractions in the paralyzed limbs are common; but the most invariable concomitant is neuralgia. This generally coexists with loss of sensibility to everything but cold, by which the neuralgia is brought on or aggravated. (This shows that its greatest action is upon the sensory portion of the spine.) The paralysis is most complete in the hands and feet, and spreads, if it do so, periphero-centrally. There is a sense of great restlessness in the limbs when the pains are present. The seat of the mischief seems to be the spinal cord. In a case observed by Huss, the spine was found tender on pressure; and Wibmer says that in autopsies the cord is always seen to be affected, especially with congestion of the lumbar portion and cauda equina."—*Stille*.

Hughes says: "Before leaving the mental and moral symptoms, they are so constant that I can not but refer them to a direct action upon the ideational and emotional centers. As in the motor and sensory sphere, we have the mingling of depres-

sion and irritation; as there the paralysis is accompanied with cramps, and the anæsthesia with neuralgia; so here, there is melancholy, but also restless irritability, anxiety, and anguish. In some forms of melancholia and hypochondriasis, we may take advantage of this action."

Frogs, after poisonous doses, become apparently paralyzed. "For instance, they remain motionless, but, when placed on their backs, struggle violently to regain their habitual position, showing that there is no paralysis of the voluntary muscles or motor nerves. At the same time, they lose all sensation; for they may be pinched, cut, or burned, without exhibiting signs of pain. This loss of sensation is proved to be due to the action of the drug on the spinal cord, and not on the sensory nerves. The apparent paralysis is supposed to be due to this loss of sensation."—*Wood*.

Its action upon the *cerebro-spinal center* is prominently shown by its action upon the *fifth* pair of nerves, especially the branch distributed to the *pituitary* mucous membrane, lining the nasal fossæ, and by the repeated fits of sneezing, accompanied by profuse, clear, thin nasal discharges, and severe frontal headache. In some cases the throat and branches of the fifth pair of nerves become involved, and subsequently the *vagus*, or *vice versa*. Beginning at the *vagus*, it may involve the fifth pair, completely resembling the so-called hay fever, and ending in bronchial asthma. (See "Pneumogastric Nerve.")

The action of Arsenic upon the base of the brain, is specific, and upon the cerebrum sympathetic.

Therapeutic Individuality.

Adapted to lymphatic nervous temperaments, who are excessively sad and irritable; dropsical and choleraic diseases; malarial fevers, especially if abused by Quinine.

Rapid and great prostration, with sinking of the vital forces; much emaciation; skin shriveled, and the physical exhaustion overrules everything.

Burning pains; the parts burn like fire, with great anguish, and fear of death; desponds of being cured, with great restlessness and exhaustion.

"For insanity, Arsenicum is the champion remedy; patients much emaciated, wretched appetites; dry, red tongue; shriveled, haggard, anxious in appearance; great bodily suffering. The mental unrest seems due to physical exhaustion, and the desire to commit suicide is to put an end to their sufferings."—*Dr. Talcott*.

"Patient dull, lethargic; pupils dilated to their widest extent; sensibility seems lost; pulse full, slightly intermittent, but excessively slow."—*Dr. S. H. Talcott.*

Arsenic symptoms are always accompanied by great anxiety; restless and frantic desperation; or the patients are so weak that they move only their hands and feet, and not the trunk.

The longer the disease has lasted, and the more deeply the organs and tissues have become affected, the more surely will Arsenic be indicated.

Diseases resulting from a disordered and defective nutrition, with pale, waxy skin.

Its action is twofold, neurotic and hæmatic. Its affinity for the tissues composing the large nerve centers affords an adequate explanation of the various neurotic symptoms produced by it, and accounts for its beneficial effects in neurotic skin affections.

Mind.—Excessive anxiety, restlessness, and great fear of death.

"Attacks of anxiety at night so severe that he jumps out of bed."—*Hg.*

"Melancholy; after financial losses; can not be consoled; thinks he will have to die, with his family, from starvation; sleepless nights; walks about, wringing his hands, with moaning."—*Hg.*

"Great fear, restlessness, trembling, cold sweats, prostration."—*Hg.*

Great anguish, tossing about, and fainting from the pain; restlessness; can not rest anywhere; goes from one bed to another.

Suicidal mania; believes his case to be incurable.

Picking of the bedclothes; hasty in all his motions; grasps anything he wants eagerly, with excessive prostration.

Irritable, discouraged, restless; vexed about trifles; gastric affections, vertigo, confusion, and heaviness of the head.

Head.—Periodical headache; constant severe headache, with vomiting when raising up the head; softening of the brain, with severe vertigo and anguish.

Sub-acute and chronic hydrocephalus; great emaciation; restlessness; dyspeptic symptoms; vomiting when raising head; spasms of one arm and one leg. Use the 200th or 1000th.

Constant severe frontal headache, with vomiting when raising head.

"Hemicrania; feels like a hot wire thrust through ramifications of fifth pair of nerves; must move head and feet; alternating

with colic or liver complaint."—*Hg.* [Especially on the left side.]

"Great heaviness in the head, with humming in the ears; it goes off in the open air, but returns again as soon as he enters the room."—*Hah.*

Megrim, with deep-seated biliary derangements; vertigo, nausea, retching, and vomiting of bile. Especially if malarial.

"Neuralgia in brain, as if it were being torn to pieces."—*Hg.*

"Sensation of wobbling or swashing in the brain."—*Hg.*

"Tensive, pressive pain spreading from forehead and temples to occiput and nape of neck; comes in violent attacks, as if the head would burst; vomits bile; stomach very irritable."—*Hg.*

Dry, scaly eruptions upon the scalp; chronic eruptions, with pustules and vesicles filled with pus; burning eczema.

"Hot head, sensitive hair, can not bear it touched, it is so painful."—*Hg.*

Excessive sensitiveness of head to open air, must wrap the head warmly; hair falls out in patches, hair-roots destroyed.

Edema of head, face, eyes, neck, and chest; anasarca.

Malignant erysipelatous inflammation; burns like fire.

Eyes.—Magnificent where the eyelids are œdematous, inflamed, with burning, sticking pain; lids close spasmodically; photophobia excessive; tears gush from the eyes so acrid that they burn like fire; pains paroxysmal, with emaciation and great nervous excitability; relieved by warm applications.

"In scrofulous ophthalmia, especially ulcers of the cornea; soreness of the internal lids; the ulceration of the cornea recurring first in one eye, then in the other; opening the eyes causes intense burning, sticking pain, especially at night; the photophobia is so great that he lies in bed with the face buried in the pillows; hot, acrid tears gush from the eyes, causing eczema of the cheeks; pains paroxysmal."—*A. and N.*

Iritis rheumatica, characterized by burning pains in the eyes, worse at night; restlessness and much thirst; vascular elevations on the cornea, with burning pains at night.

"Iris discolored, reacting sluggishly; sight cloudy; sees as if through a white gauze; everything appears green; retinitis albuminurica."—*Hg.*

"Conjunctiva looks like a raw piece of beef; granulated lids."—*Hg.*

"Edges of lids painful during motion, from dryness of the lids."—*Hg.*

—Eyelids swollen, œdematous, non-inflammatory, and painless; seem distended with air. Bright's disease.

Eyes sunken in their sockets; fixed, dull, with blue rings around them; in cholera, low fevers, and gastric affections.

All affections of the eyes with *intense burning pains*.

—**Ears.**—Roaring in the ears from paroxysmal pains; ringing in the ears; hardness of hearing, in typhoid fever.

Inflammation, and purulent otorrhœa; ichorous, fetid discharges, especially in scarlatina, with malignant swelling of the parotids.

Unusual sensitiveness to sound.

Nose.—Copious watery, acrid discharges that burn much.

"Distressing stoppage at the bridge of the nose; stuffed cold, the nose seems stopped up, and still it runs; fluent coryza, with frequent sneezing; hoarseness; sleeplessness; and swollen nose."—*Hg.*

Excoriating discharges from the nose, especially in scarlatina.

Influenza, with profuse burning, corroding discharges, accompanied with extreme lassitude, and aching of the muscles.

Face.—Cadaverous face, nose pointed, eyes sunken, or white and waxy, with great debility. In bowel diseases.

Face very pale, sunken and distorted, in cholera; Hippocratic face expressing great anguish.

Neuralgia of the face; pains burning, and greatly aggravated at night; intermittent; worse during rest, relieved by exercise.

Lips cyanotic; lips dry, or covered with a black slime.

Lips dry and cracked, in asthenic fevers.

Cancerous ulcers of the lips have been cured by Arsenicum.

Mouth.—Sour, bitter, putrid, metallic, or sweet taste.

Great thirst for cold water, drinks very often, taking but little at a time; keeps constantly licking the dry, cracked lips, with burning fever and much prostration.

Tongue, dry, brown or black, with a low typhoid condition.

"Dry tongue, very red, with prominent papillæ."—*Hg.*

"Tongue like a piece of red leather, so thick that it is bent when protruded; edge of the tongue red and takes imprint of teeth, with great thirst."—*Hg.*

Tongue yellowish-white, brown, or black; trembling when being protruded, in low nervous fevers.

"Gangrene of tongue; spots on tongue burn like fire."—*Hg.*

Tongue smooth as if varnished; scarlatina; typhus and gastritis.

Gangrenous aphthæ, which burn like fire; malignant ulceration of the mouth, with irregular, jagged edges.

Swollen, bleeding gums, with jerking toothache, relieved by heat.

"Great dryness of the mouth; excessive thirst, drinks but little at a time, but very often; the tongue is dry as if burnt, deprived of sensibility, with stitching and burning pain."—*D.*

Fauces.—The tonsils inflamed, swollen, and burn like fire.

"Burning when swallowing; food goes down to region of the larynx, when it is ejected; malignant sore throat; fauces and tongue very much swollen; fetid breath."—*Hg.*

Diphtheria, adynamic form; great fever; restlessness; prostration; burning thirst; breath excessively fetid; even gangrenous; somnolence; muttering delirium; false membrane has a dry, wrinkled look; throat feels dry and as if scraped.

Appetite.—Loss of appetite, with great desire for acids.

Appetite variable, with unquenchable thirst; wants very cold water, but the stomach can not tolerate it.

"Pain in stomach or abdomen while eating or immediately after; can take no more food at the time; nausea, gagging, vomiting, mostly two hours after the meal, even the lightest kind of food; eating the least increases the chill."—*Hg.*

Stomach.—"The stomach does not seem to assimilate cold water; it is wanted, but can not drink it."—*Raue.*

Violent burning pains in the stomach; it feels on fire.

Feeling as if there was a stone or weight in the stomach.

"The nausea which Arsenic produces is conjoined with a sensation of the greatest weakness, with anxiety; it recurs periodically, and is often conjoined with symptoms that seem to have no pathological connection with it; it is worse during repose, and is aggravated by motion."—*D.*

Nausea and vomiting after eating ice-cream, or drinking ice-water; the stomach feels full and greatly distended.

Excessive retching and nightly vomiting; anguish and restlessness.

The stomach feels greatly distended, with nausea and vomiting.

"Violent vomiting of ingesta, serous liquids, with flakes;

watery diarrhoea; cramps of the abdominal muscles and extremities."—*Rauc.*

"The vomiting requires great effort; is scanty in quantity, as are all the excretions of Arsenic; followed by extreme prostration; the matters vomited may be first water, then thick, glairy, or grass-green mucus, and then blood."—*D.*

"Arsenic provokes in the stomach rather an irregular convulsive action than an ordinary peristaltic or anti-peristaltic motion; rather anxious, fruitless retching than a copious vomiting. The burning pains are the most constant; with them come violent thirst, lamentation, anguish; continuous or periodic. If the latter, they occur most frequently at 2 a. m., or after eating."—*Hah.*

"Vomiting immediately after eating or drinking; vomiting of all he takes (cancer); sour, acrid vomiting (gastralgia); vomiting of mucus and bile (colic); vomiting of blood (hæmatemesis); black vomit (yellow fever); slimy, watery vomiting (gastritis); violent vomiting and cramps (cholera); nausea, vomiting, and fetid stools (dysentery), with sudden and great prostration."—*Hg.*

Frequent and violent vomiting, with apprehension of death. Epigastrium hard, distended; bloating of the stomach, violent contraction, with intense heat, burns like fire in the stomach, with great thirst; drinks little and often.

Acute gastritis, painful vomiting of grass-green solids or fluids, with a feeling of fire in the stomach; sub-acute gastritis; food produces great distress and vomiting.

Hæmatemesis; stools black; burning in the stomach.

Induration in the stomach; scirrhus, with burning pain.

Obstinate and long-continued vomiting in diseases of the brain, especially acute and sub-acute hydrocephalus.

Hypochondria.—Induration and hypertrophy; liver can be felt, and is painful on pressure; from malarial intermittents.

"Painful bloatedness in right hypochondrium, with burning pain; jaundice after intermittent fevers, especially after abuse of Quinine or Mercury, with burning, stitching pains."—*Hg.*

Both hypochondria sensitive to the touch, with induration and enlargement of the spleen, after intermittent fever; enlargement of the spleen, with general dropsy from malaria.

Abdomen.—Burning distress in the abdomen, like coals of fire, with great restlessness, tossing and turning; peritonitis.

"Deep, heavy, burning pain in abdomen, as if the intestines

were tied up; violent pains in abdomen, with great anguish, has no rest anywhere, rolls about on floor, and despairs of life."—*Hg.*

"Terrible cutting belly-ache, with frequent thin evacuations, fainting and cold sweat; abdomen greatly distended and painful; gastritis mucosa; meteorism of abdomen without pain; great tympanitis; typhus; dysentery, etc."—*Hg.*

"Ascites; from heart, hepatic, or spleen diseases, also post-scarlatinal; from morbus Brightii; faint from the least motion; suffocative spells at night; anguish, thirst."—*Hg.*

For post-scarlatinal dropsy, no remedy excels Arsenicum; the abdomen is much distended, sore and painful; urine highly albuminous, and general anasarca of the whole body.

Inguinal glands enlarged and painful; groins chafed.

Stool.—Watery or cadaverous diarrhœa, scenting the whole atmosphere of the room; cramps in the bowels and legs; acrid, corroding, cadaverous, rice-water stool, with great innervation, and burning thirst.

Great innervation after stool; the anus burns like fire.

"Bilious dysentery, with great exhaustion after every exertion; great distress and restlessness, worse after midnight."—*Hg.*

"Diarrhœa renewed after eating or drinking."—*G.*

"The characteristic stool may be said to be small in quantity, of dark color, offensive odor; and with it great prostration."—*D.*

Diarrhœa from cold substances, particularly ice-cream or ice-water.

Chronic diarrhœa, involuntary, and very prostrating; stools slimy, papescent, brownish, or watery, with bloated abdomen.

"Diarrhœa; slimy, green mucus, tenesmus; and cutting pains in the anus; stools small with tenesmus; stools of green mucus; black, acrid, and putrid; yellow, with tenesmus and burning pain; like dirty water, of blood and water."—*Hg.*

"Cholera infantum, simultaneous vomiting and purging, great exhaustion; all aggravated by food and water."—*Hg.*

Painful chronic lenteria, with excessive tympanitis, or emaciation.

For chronic diarrhœa, Arsenic excels all other drugs, especially in the last stage of *tabes mesenterica*; purging, with extreme coldness of the extremities; worse after midnight; burning stools, with violent colic; extreme coldness of the extremities.

The anus burns like fire, long after stool.

"Burning stool; yellow; violent colic; fissures of anus."—*Hg.*

Hæmorrhoids; with stitching pain when walking or sitting, not when at stool; with burning pain relieved by heat.

"Hemorrhages from the bowels, dark, offensive."—*Hg.*

Stools so acrid that they produce great excoriation.

Constipation; abdomen bloated and pains much.

Urinary Organs.—Burning, high-colored, scanty urine. Albuminuria, after scarlatina, diphtheria, and in Bright's disease of the kidneys. Dropsical effusions following the above-mentioned causes, have in thousands of cases yielded to Arsenic, when the urine was loaded with albumen; fatty degeneration or atrophy of the Bellinian tubes and tufts.

"Urine scanty, passed with great difficulty; strangury; burning during discharge; suppression in cholera."—*Hg.*

"Atony of the bladder, no desire to urinate, and no power to do so; especially after parturition."—*Hg.*

"Uræmia with vomiting, colic, spells of suffocation, emphysema; heart disease, with great anguish, especially in drunkards."—*Hg.*

Uræmia at the commencement of scarlatina.

"Urine, dark brown; dark yellow; turbid; sediment of red sand, mixed with pus and blood; greenish; hæmaturia."—*Hg.*

Involuntary micturition from paresis of the bladder.

Burning in the urethra during micturition.

Sexual Organs, Male.—Acute inflammation of the genital organs; excessively painful, and often gangrenous.

Scrotum œdematous, in dropsical effusions; hydrocele.

"Phagedenic chancres, livid hue, with intense burning; even sloughing; serpiginous ulcers on the genitals."—*Hg.*

"Constitutional syphilis, with indescribable feeling of weakness, or with dropsy and malignant ulcerations."—*Hg.*

Bubo, when assuming a gangrenous aspect; glans blue-red, swollen, and cracked; burning during micturition.

Sexual Organs, Female.—Catamenia too early and too profuse. Constant and exhausting menorrhagia and metrorrhagia.

"Menorrhagia in feeble females, cachectic, affected with rheumatism, disorganization of the uterus or ovaries; in eruptive fevers [typhoid fever], and when aphthæ break out, indicating a low state of the system."—*Hg.*

Hemorrhage, sudden profuse discharge of dark blood, with lancinating, burning pains; polypus or scirrhus uteri, with hard, nodulous swelling on the cervix and os; bleed much from the slightest touch.

Ulceration of the uterus, with ichorous, fetid, corrosive discharge.

Leucorrhœa, corrosive, fetid, profuse, and debilitating.

"Leucorrhœa acrid, corroding, thick and yellow, dropping out while standing and emitting flatulence."—*Hg.*

Inflammation of the genitals; vagina hot, dry, and swollen.

Ovaries.—Burning, stitching, pressive, tensive pains in the ovary.

"Drawing, stitching pain from region of ovary into thigh; feels numb and lame, worse from motion and bending."—*Hg.*

Ovaritis, with burning pains, with great restlessness, partially relieved by motion of feet, with whitish, fetid uterine discharge.

"Ovarian tumor on right side, with pain in leg, can not keep the foot still; ovarian tumor filling entire abdominal cavity, could not stoop to dress her feet."—*Hg.*

Pregnancy.—Morning sickness; empty retching; frequent fainting, with great burning in the stomach like fire.

Acute malignant metritis, with dissolution of blood; copious sweating; great meteorism; discharges excessively offensive; muttering delirium, and excessive prostration.

Ascites from puerperal peritonitis; uræmic convulsions.

Mammæ.—Cancer of the breast, with great burning distress, partially relieved by external warmth; ulcers burn like fire.

Respiratory Organs.—Voice hoarse from debility.

Asthma with constriction of the chest; great anguish; aggravated by motion, in the evening and at night. Especially in old people with œdema of the feet, or general anasarca. More useful in the chronic bronchitic form. "It attacks fiercely and soon reaches its acme. The more the patients seem on the point of suffocating, the more painful and distressing the restlessness, the more wheezing and the louder the respirations, the more Arsenicum will be found appropriate." (*Bachr.*) As to the *dose*, from the crude drug up to the 1000th attenuation have made excellent cures; but, as a rule, *Fowler's solution* is ten times more valuable, used in from one to five drop doses once in four hours. It is also used by the process of fumigation in the form of *cigarettes*. Trousseau uses Arseniate of Potassa, 15 grains; distilled water, one ounce. Unsized white paper is thoroughly soaked in this solution, dried, and cut into twenty equal parts, and each part rolled into a cigarette. Two or three of these are smoked daily for the relief of *asthma, chronic bronchitis, phthisis, hay asthma, and acute and chronic coryza*. The patient inhales the smoke by

a single inspiration ; and great advantage is obtained by snuffing these fumes into the nares.

Cough. "Applies in all kinds of coughs ; predominantly, however, in *dry cough*. In *spasmodic cough*, it is indicated only in its typical form. *Whooping-cough* does not lie in its range. It is indicated in acute and *chronic affections* of a torpid or dangerous nature ; especially indicated for cough in organic diseases of an incurable or destructive nature, either in the larynx, bronchi, lungs, pleura, or heart. Its choice depends upon other than cough symptoms ; as dyspnœa, asthma, suffocating spells, cyanosis, heart symptoms of all kinds, disturbed circulation, decomposition of the blood, exudations, decay and gangrene of organic substance, disorganizations, excessive pains ; exhaustion of life-power, collapse, high degree of weakness, syncope, anæmia, nervous irritability, disposition to ulceration ; hydræmia ; nightly aggravations ; worse from lying down, drinking, and change of weather."—*Hirschel*.

"Cough excited by smoky sensation, or as of vapors of sulphur in larynx, or by constant titillation in larynx."—*Hg*.

Deep, dry, increasing, suffocating cough ; can not lie down, obliged to sit up in bed ; worse in stormy weather.

"Expectoration, frothy saliva ; thick yellow ; gray, green, bitter, salty, or mucus streaked with blood."—*Hg*.

"Hæmoptysis after loss of blood, burning heat all over, especially with pain between the scapulæ ; in drunkards or from suppressed menses."—*Hg*.

Burning in chest and stomach ; pleuritic effusion ; great dyspnœa from slightest motion ; tongue yellow, anasarca.

"Catarrh of chest ; child tosses about in great agony."—*Hg*.

Pneumonia, so weak can not move ; offensive, dark-colored sputa.

"Chronic pneumonia ; purulent sputa, with suffocation."—*Hg*.

Gangrene of the lungs, with green, ichorous, fetid discharge.

Impending paralysis of the lungs ; cyanosis and rattling breathing ; the chest feels as if bound with a hoop.

Hydrothorax ; general anasarca ; suffocation, can not lie down, want of breath ; breathes with difficulty, with much anguish.

Patients that take cold easily, with copious watery nasal discharges.

Heart.—Diseases of the heart, has great dyspnœa, can not lie down for fear of suffocation, sits up in great anguish.

Angina pectoris ; agonizing pain in the heart, and dyspnœa, with trembling, irregular motion of the heart.

"Palpitation of the heart; can not lie down; worse by going up stairs; dyspnœa and great anguish."—*Hg.*

"Valvular disease, with intermittent pulse, dyspnœa, anasarca; can not go up stairs; worse nights; hydropericardium with great irritability, anguish; restlessness; especially in uræmia; fatty degeneration."—*Hg.*

Pulse rapid, weak, quick and small, or intermittent.

Pulse imperceptible, thread-like, or entirely gone.

Chronic inflammation of serous membranes, with copious dropsical effusions in all the cavities.

Distention of the chest, with stitches.

Back.—Burning in the back, lumbar and sacral portion.

Pain in the back as if broken, with burning in the spine.

"Greatly exhausted from sexual excesses; pulling and tearing in back and legs; formication along the spine, anasarca."—*Hg.*

Bruised pain in small of the back; spinal affection, with paralysis of the legs.

"Loss of strength in small of back; sense of warm air streaming up the spine into the head, precedes an epileptic fit."—*Hg.*

Ulceration, and bed-sores on the back; burn like fire.

Upper Limbs.—Paralytic feeling, with drawing, tearing pains.

Arms and hands dark livid, as in malignant cholera.

Trembling of the hands, in drunkards.

"Drawing, jerking, and tearing from tips of fingers into shoulder; vesicles filled with blood on tips of fingers; nails ulcerated."—*Hg.*

Burning ulcers on hands and tips of fingers; nails blue.

Lower Limbs.—Complete prostration, can not stand up, in asthenic diseases, with great faintness, must lie down.

Sudden sinking of strength, from severe pain or asthenia.

Neuralgia, pains burn like fire and are intolerable.

"Sciatica, with severe burning, tearing, and drawing pain, not allowing the affected part a moment's rest."—*Hg.*

Tearing pains; cramp in thighs, calves, and toes, evenings, with lassitude.

"Pain in the knee-joint, as if beaten, with swelling."—*Hg.*

"Frequent cramp in the calves; can not be still at night, has to change position of feet constantly, or walk to get relief.

The feet are highly œdematous, icy cold and numb, and are so weak he is compelled to lie down.

"General lack of will-power in upper and lower limbs."—*Hg.*

Limbs feel heavy and greatly fatigued, penetrating to the marrow in the bones; weakness of the feet, can not stand.

Great œdema of the feet, with extreme exhaustion.

General anasarca, feet cold and numb; general dropsy.

Phagedenic ulcers; bullæ on soles of feet, burn like fire.

Great restlessness of the limbs, with fear and anxiety; exhaustion from slight exertion, must lie down; rapid and complete exhaustion; fainting from intestinal diseases.

Sudden sinking of strength; cold sweat; fear of death.

Complete paraplegia; skin of legs cold, flaccid; and great fear of death.

Twitching, tremor, trembling, and great weariness of the legs.

"Neuralgia, the pains are burning, with agony and great restlessness; often intermittent; worse during rest, at night; relieved by exercise."—*G.*

Skin.—General anasarca, white, waxy pale face, and excessive debility; vesicles that burn like fire.

Eruptions disappear suddenly, with rapid prostration; especially scarlatina, with malignant sore throat, or dropsy following.

Phagedenic ulcerations, constantly extending in breadth.

"Bran-like, dry, scaly eruptions, with itching and burning; the latter increased by scratching and followed by bleeding."—*Hg.*

"Irritation of the interior ganglia, those whose affection is so often mistaken for spinal irritation, which develops itself in that raised, burning, itching eruption popularly called 'hives' or 'nettle-rash.'"—*J. H. P. Frost, M. D.*

Arsenical paste has long been used to destroy warts, condylomata, cancerous growths, and nerves in carious teeth. Scaly eruptions, chronic eczema, and leprosy; malignant carbuncles, with stinging, burning pains. No remedy can equal Arsenic for malignant pustules.

Ulcers; edges hard, spongy; burning, ichorous discharges, with proud flesh; bed-sores.

Scirrhus, first stages, ulceration; burns like fire, as if a hot iron was thrust into the ulcer; and always aggravated at night.

Fever.—The periodic, or intermittent, action of Arsenic upon the healthy subject, marks it as one of the leading remedies for intermittent fever. Dr. Wurmb says:

"Arsenic is one of those few drugs whose action is distinguished, not alone by its intensity, but equally by its extent; it involves the entire organism. Every system, every organ, and every nerve-filament is so subjected to its powerful influence that

we are not able to say, which of its symptoms are primary, or which are secondary, and where the focus of its action chiefly lies.

"We see the entire nerve-life attacked in all directions, from the slightest excitement to the most violent irritation; from the mere sensation of weakness to actual paralysis; from the most inconsiderable acceleration of the circulation to the most violent febrile storm, even to decomposition and destruction of the organic substance.

"The more malignant the influence, the longer the disease has lasted, and the greater the prostration, especially if the liver and spleen have become involved, the surer and more certain are the indications for Arsenicum.

"The paroxysms are general, violent, and of long duration; the stages are either distinctly developed, or else, as is most frequently the case, the one or the other stage is absent, or is very feebly present; if the latter be the case, it is generally the cold stage which fails, and the hot stage is all the more violent. The more intense the heat, the longer it continues, the higher the excitement in the vascular system, and the more burning and insatiable the thirst, the better is Arsenic indicated. The sweating stage may be altogether wanting, or copious and clammy.

"The apyrexia is not pure, but is disturbed by symptoms of the most varied kind; restlessness, sleeplessness, spasms, digestive disorders, feeling of weakness and general prostration. After every paroxysm there is a notable increase of prostration."

Typhoid fever. "The patients are very restless, anxious, and generally so weak that they move only the hands, feet, and head, and not the trunk; and hence do not voluntarily change their posture in bed. Pulse frequent, small, and irregular; high temperature; cheeks hot and red; the thirst insatiable; decomposition of the blood, as shown by the exanthemata, ecchymosis, and often profuse hemorrhages from various organs, and by the destruction of the tissues on which the patient lies; muttering delirium, with anguish and distress. Patients perceive nothing, complain of nothing; excretions pass involuntarily; but the urine is frequently retained in the bladder, which is often so distended as to threaten a rupture. The lips and tongue are dry; the latter often hard, clean, dark red, or else with thick dark-brown coating, which often, also, covers the lips and teeth; speech often impossible."

Frequent watery, colliquative stools, or watery and bloody.

The flatulent distention of the abdomen is enormous; rattling in the lungs. Emaciation very great and rapid.

Intermittents, chill and heat predominate; no sweat; fungoid malarial diseases.

Septicæmia, from decayed animal matter, or blood.

Neuralgia; pains are burning; with agony and great restlessness; often intermittent; worse during rest, at night, and relieved by exercise; pains as if a red-hot wire was drawn along the nerve. Best known remedy for neuralgia, in all of its forms, in any part of the body, when indicated.

Chorea. In simple, uncomplicated cases, no known remedy can equal Arsenic in the form of Fowler's Solution, two to four drops three times a day. Dr. D. M. Reese, of New York, cured over two hundred cases, without one failure.

All septic diseases of a typhoid, malignant nature, with cold, clammy sweats and extreme prostration of all the vital forces; as yellow fever, cholera, typhoid, variola, etc.

Aggravation.—At night, especially after midnight; in cold, damp air; after eating or drinking something cold; by lying down with the head low; or by motion.

Amelioration.—By warm air; or lying with the head high; and during the day.

ARUM TRIPHYLLUM.

Indian Turnip.

Habitat: America, etc. Tincture of the fresh root, Class I.

Antidotes.—Acids, Merc., Iris, Phyt., Rhus.

Through the animal nervous system, Arum has two special centers of action:

- I. MUCOUS MEMBRANES. *Excoriating Inflammation.*
- II. GLANDULAR SYSTEM. (SALIVARY.) *Insalivation.*

Mucous Membranes.—Arum especially acts upon the mucous membrane of the nose, buccal cavity, tongue, and fauces, as a great irritant, producing acute inflammation and aphthous ulceration.

Glandular System.—The glands especially acted upon by this remedy are the salivary. Here it produces great congestion and violent salivation.

Therapeutic Individuality.

Of great value in scarlatina, where the nostrils constantly discharge a burning, ichorous fluid, excoriating the nose and lips; nose entirely occluded; fluent, acrid coryza; constantly picking the nose until it bleeds; unconscious, or wild delirium; he can only breathe with mouth open.

Lips very sore, swollen, burning, cracked and bleeding; skin peeling off; constant picking at the lips and nose.

Tongue red like a beet, with prominent papillæ.

Inflammation of the mouth, with sudden swelling of the tissues, with burning, stinging pains.

Excessive salivation, the whole buccal cavity being raw and sore; profuse flow of acrid saliva.

Children pick and bore into raw surfaces; notwithstanding it gives great pain, they keep up the boring.

"Cavity of mouth covered with diphtheritic deposit and ulcers."

—*Hg.*

"Fauces and nares ulcerated; secretions corroding and acrid."

—*Hg.*

Putrid sore throat; glands of neck much swollen.

Acrid, excoriating, watery, brown diarrhœa.

Urine scanty and high colored.

Clergyman's sore throat; voice hoarse; pain in larynx, and great accumulation of mucus.

Excessive restlessness, from sore throat, scarlatina, diphtheria.

Eruption all over the body, much itching, great restlessness; desquamation in large flakes, two or three times, after scarlatina.

Aggravation.—Mornings; lying down; and northwest wind.

Amelioration.—On rising, and in middle of the day.

ASAFŒTIDA.

Scorodosma Fœtidum.

Habitat, Asia. The gum-resin; according to Class IV.

Antidotes.—Camph., Puls., Caust., Cinch., Merc., Electricity.

Through the cerebro-spinal nervous system, Asafœtida has three special centers of action:

- I. MUSCULAR SYSTEM. *Excito-Motor Insanity.*
- II. GLANDULAR SYSTEM. *Hyperæsthesia; Secretions Increased.*
- III. MUCOUS MEMB. *Increased Secretions; Abdomen Tympanitic.*

Muscular System.—Through the cerebro-spinal nervous system (excito-motor portion), Asafœtida produces hysterical insanity of any or all of the muscles in the body, especially centering upon the œsophagus; here it produces constant muscular spasm, feeling like a large lump in the throat that can not be swallowed.

Glandular System.—Especially centering upon the ovaries, mammae, and testicles, producing hyper-sensitiveness and increased secretions, with swelling and induration. The sexual desire becomes excited and increased; and the menses become too early and too profuse.

Mucous Membranes.—The action of Asafœtida is to increase all the mucous secretions, especially those of the digestive organs and lungs. On the mucous membranes of the *digestive organs*, in doses of one grain to twenty, this drug so increases the intestinal secretions that mild catharsis is produced, with great tympanitis of the whole abdomen; the distention of the stomach and bowels is perfectly immense. This is probably due to paresis of the muscular coat of this tract. With this distention, there is a discharge of aliaceous gas from the stomach and bowels that is intensely fetid.

Larger doses, ten to thirty grains, produce nausea, vomiting, colic, increased biliary secretions, augmenting the peristaltic action of the intestines, and causing copious watery diarrhœa.

Dr. Heinigke says: "Although an action upon the brain and spinal marrow can not be disputed, yet the large ganglionic plex-

uses of the abdominal and pelvic cavities, the centers of the vascular nerves, especially the system of the vena cava inferior, seem to be principally affected. Thus the uncommon irritative conditions of the gastric and intestinal musculature, the intestinal mucosa, and the glandular organs belonging thereto, are explained, as well as the orgasm and hyperæmia,—conditions which appear, now here, now there, in the abdominal and pelvic cavities."

It is also said to act upon the bones; but the evidence so far, is not satisfactory.

Therapeutic Individuality.

All forms of hysteria where the throat symptoms predominate; i. e., a sensation as if a lump or spasm were ascending in the œsophagus, causing difficulty in breathing, and much alarm about the feeling in the throat. The excito-motor system throughout the body, is in a state of hyperæsthesia and hysterical spasms; phlegmatic constitutions; ill humor; over-sensitiveness, either physical or mental.

Hysterical nervous headache; single and sudden stitches in the left temple; stupor and complete coma.

Pressive pain in the forehead from within outward.

Fickle, hysterical; sleeplessness; full of dreams.

Vertigo; the mind is very active.

Cold sweat upon the forehead.

Otorrhœa, bones diseased, with offensive discharge.

Eyes.—Very useful in ciliary neuralgias; deep-seated inflammation of the eyeball; iritis, kerato-iritis, irido-choroiditis, and retinitis, especially of a syphilitic origin, with throbbing, boring, or burning pains; especially, severe boring pain above the brows. All aggravated at night.

Nose.—Caries of the bones; discharge of offensive pus; ozæna.

Mouth.—"Constantly chewing and working frothy slime out of mouth, with swollen lip and tongue."—*Hg.*

"Speech unintelligible; tongue white, swollen; chorea."—*Hg.*

Throat.—Burning and soreness of the fauces.

Globus, sensation of a ball rising in the throat, with dyspnœa. This hysterical rising of a lump in the throat is the most prominent symptom of this drug.

Loss of appetite, with disgust for food.

Stomach.—Excessively fetid eructations, smelling like garlic. Great accumulation of gas in the stomach and bowels; the gas constantly presses upward, with belching. Feeling of strong pulsations in the epigastrium; powerful hiccough.

"Meteorism of stomach, great tension and difficult eructations; gone, empty feeling in pit of stomach, with pulsation, and fainting."—*Hg.*

Pain in stomach, darting upward along the œsophagus.

Abdomen.—Flatulent colic, with abdominal pulsations, and great distension with gas; hysterical.

Watery, green, or brown stools, with disgusting odor.

Urinary Organs.—Copious watery urine in hysteria.

Spasms of the bladder during and after urination.

Urine very scanty, acrid, and strong smelling.

Sexual Organs, Male.—Irritation in the glans penis, with stitches, and pain in the testicles.

Very faint after coition. Increased sexual desire.

Sexual Organs, Female.—Menses too early, too scanty, and last but a short time, with bearing-down pains, worse by motion. Sexual desire greatly excited; nymphomania.

"Leucorrhœa, profuse, greenish, thin and offensive."—*G.*

Ulceration of the os, exceedingly sensitive, with fetid discharge.

"Swelling and inflammation of the genitals."—*Hg.*

"It is said to kill the fœtus and dry up the milk."—*Hg.*

Mammæ.—Mothers who have a deficiency of milk, with hypersensitiveness of the whole system.

Mammæ become turgid with milk, in those who are not pregnant, as during the ninth month.

Milk soon disappears after delivery. (In such cases this drug has often caused it to return. First three attenuations.)

Air-Passages.—Nervous hysterical asthma, with hard, dry, spasmodic cough; spasm of the glottis, with hysterical spasms.

Oppression of the chest, can hardly breathe, in great agony, and exceedingly restless; brought on from eating or exertion.

Old chronic catarrhs, with spasmodic, wheezing cough.

Obstinate, dry, teasing cough at night, with globus; the chest feels as if there was a heavy weight upon it, with burning distress extending to the arms.

"Palpitation with faintness, rush of blood to head, flushing of the face, anxiety and excitement."—*Hg.*

Nervous palpitation, with small, rapid pulse.

Back.—Can not work, the back pains so much.

Feels so weary can hardly walk; burning along the spine.

Extremities.—Twitching and spasmodic action of the arms; frequent muscular jactitation in arms and hands, in hysteria.

Wrist-joints ache much, especially in syphilis.

Constant convulsive tremor of limbs; muscles twitch constantly.

Hysterical convulsions is a marked symptom of Asafœtida.

"Swelling around the ankle, can not use the foot; carious ulcer on the tibia, extremely sensitive."—*Hg.*

Painful, sensitive throbbing in the great toe.

Skin.—Ulcers that are excessively sensitive; can not bear the softest dressing, or even the approach of any one.

"Ulcers with high, hard, bluish edges; sensitive to touch; easily bleeding; thin, offensive, greenish, ichorous pus; ulcers grow black."—*Hg.*

Bones.—Scrofulous caries of the bones; the ulcer has high, hard edges, bleeds easily, is sensitive; profuse greenish, offensive discharge, with hysterical temperament.

Painfulness of the bones, with softening and swelling of the bone and periosteum.

"Important in some forms of tertiary syphilis, especially Mercurio-syphilitic affections of the bones of the wrist."—*F.*

"Obesity; seldom of use in bone diseases unless the body is heavy, bloated; the skin adheres to the bone in caries."—*Hg.*

"Glands hard, swollen, hot and throbbing, with shooting pains; all signs of fullness of the venous system."—*Hg.*

Particularly adapted to nervous, hysterical, scrofulous individuals, with venous, hæmorrhoidal constitution, and phlegmatic temperament, with portal congestion.

Aggravation.—While sitting; after eating; and mornings.

Amelioration.—In open air; from motion; and evenings.

ASPARAGUS OFFICINALIS.

Asparagus.

Habitat: Europe, America, etc. Tincture of berries and seeds, Class III.

Through the spinal nerves, Asparagus has one special center of action :

I. KIDNEYS. *Increased Blood-Pressure; Diuresis.*

Urinary Organs.—Through the spinal nerves, the functions of the convoluted tubes are greatly excited from increased blood-pressure, causing excessive urination, with strong, offensive odor, accompanied by much aching distress in the sacral region.

Therapeutic Individuality.

Rheumatic diathesis; joints especially affected with lithic acid deposits; and much rheumatic pain in the joints.

Urine scanty, straw colored, and offensive, in rheumatism.

Gravel passes in small quantities with the urine.

Rheumatic gout, with concretions of lithic acid in the joints.

Countenance pale, wax-like and bloated, with a general expression of anxiety, in dropsical effusions.

“Especially adapted to hydrothorax and general dropsy, where the kidneys are involved, with palpitation of the heart at night; fullness of the chest; rapid, laborious respiration, and feeble, irregular pulse; very fretful and feverish; great languor and disinclination to physical or mental labor.”—*Marcy and Hunt*.

Renal dropsy, urine scanty, loaded with the phosphates and the urate of ammoniâ, with many rheumatic symptoms, and often general anasarca.

Excellent as a diet in rheumatism or renal dropsy.

AURUM.

Gold.

Habitat: America, Australia, etc. An element. Trituration.

Antidotes.—Asaf., Iod., Cupr., Bell., Merc., Camph., and Wine.

Through the vegetative nervous system, Gold has six special centers of action :

- I. LYMPHATIC GLANDULAR SYSTEM. *Congestion; Induration.*
- II. OSSEOUS SYSTEM. *Caries and Exostosis.*
- III. DIGESTIVE ORGANS. *Gastro-Intestinal Inflammation.*
- IV. VASCULAR SYSTEM. *Excited, and Raised Temperature.*
- V. SKIN. *Copious Diaphoresis.*
- VI. GENERATIVE ORGANS. *Passions Excited.*

Glandular System.—Aurum acts upon the whole glandular system, particularly centering upon the liver and testicles; they become congested and indurated. In the lymphatics, we have congestion, torpor, and adenitis. Chronic suppuration of glands, ascites and albuminuria.

Bones.—Aurum especially affects the palatine bones, producing caries and exostosis. It also produces inflammation of the periosteum.

Digestive Organs.—It produces irritation and inflammation of the gastro-intestinal tract, with nausea, vomiting, flatulent colic, much rumbling and diarrhœa, with increased urination.

Vascular System.—The vascular system is moderately excited, with febrile irritation, chill predominating.

Chilliness and rigors are very prominent symptoms; can not get warm; the whole body cold.

Skin.—Aurum stimulates the absorbent, secretory, and excretory functions of the skin, producing copious night sweats, and a great liability to take cold, with sensitiveness of the whole body to the cold air.

Sexual Organs.—Greatly excited and increased sexual desire in both sexes. In the male, it produces erotic salacity, going on

to painful priapisms; and, in the female, too frequent and too profuse menstruation.

Therapeutic Individuality.

Great melancholy, the mind constantly dwells upon suicide, from congestion of the liver or testicles.

Scrofulosis and syphilitico-mercurial affections, where there is great despondency and tendency to suicide. This all-pervading despondency is found in all diseases that call for the use of Gold.

Dull, drawing, burning pains in the forehead; head is hot, and the limbs are cool.

"Rushes of blood to the head and brain; headache; giddiness; hammering and rustling noises in the head."—*Dr. J. C. Burnett.*

Pains in the bones of the head, with tenderness on pressure, and the bony lumps to be felt under the scalp, from secondary syphilis; exostosis with nightly bone-pains.

Eyes.—Amaurosis; can not see anything distinctly, as everything seems double; objects are jumbled up.

Acute ophthalmia, sclerotica red, with burning heat, or keratitis parenchymatosa; photophobia; loss of vision.

"Chronic inflammation of the eyelids; fistula lachrymalis; caries of the nasal bones."—*Hg.*

Ears.—Caries of the ossicula tympani; they come from the ear. Chronic inflammation and nightly bone-pains; chronic otorrhœa, with buzzing noises, and very sensitive to sounds; music relieves.

Nose.—Caries of the nasal, palatine, and mastoid bones; the bones of the face and nose are tender and painful, while the wings of the nose are sore and inflamed; sore within that scabs over.

"Ozæna scrofulosa or syphilitica, with unbearable odor; bad-smelling watery discharge, irritating the upper lip."—*Hg.*

"Red swelling of left nostril; nasal cavity ulcerated deep in, with dry, yellowish scurf, and sense of obstruction; blows blood and pus from the nose."—*Hg.*

"Coryza; snuffles of a baby; pressing pains in the nose; deep cracks in the *alæ nasi*."—*Hg.*

"Lupus attacking the *alæ nasi*; in old cases of ozæna"—*Hg.*

Face.—"There is a pustular eruption on the face, neck, and chest, the parotid and submaxillary glands swell and are painful;

the bones of the face and nose are tender and painful, while the wings of the nose are inflamed, with sores within that scab over."—*D.*

"Exostosis of right cheek bone; submaxillary glands swollen; lips swollen, deep red, and are painful."—*Hg.*

Mouth.—Teeth loose; gums bleed, and are ulcerated.

"Taste entirely lost. Tongue as hard as leather; stiff, can hardly talk; induration after glossitis; or cancer of the tongue."—*Hg.*

Teeth, gums, and throat very painful and ulcerated; extremely offensive breath; with salivation.

Craves nothing but acids.

Tonsils suffer loss of substance from long-continued suppuration; tongue hard as leather, hardly movable; great tendency to become hoarse.

Stomach.—Inflammation of the stomach; nausea, vomiting of green bile, with burning, sharp pains in the stomach, and cramps.

Immoderate appetite and thirst, with qualmishness.

Hypochondria.—"Induration of the liver, with dropsy."—*Hg.*

"Burning in right hypochondrium; hepatic hyperæmia and swelling; much heat and swelling; ascites."—*Hg.*

Spleen enlarged; albuminuria.

Abdomen.—Distention of abdomen from ascites, and much pain in the bowels; very stiff in region of the groins.

Nightly diarrhœa, with burning in the rectum.

Obstinate constipation, with hæmorrhoids.

"Fistula in ano, in young man."—*Hg.*

"Numerous circum-anal condylomata, and syphilitic diathesis."—*Hg.*

Urinary Organs.—Urine scanty and turbid in dropsy.

Albuminuria, pains in region of kidneys, frequent urging to urinate, worse at night; from tertiary syphilis.

"Pressing around the waist; increased urination; renal hyperæmia."—*Hg.*

Albuminuria in pregnancy, with general anasarca and despondency.

Sexual Organs, Male.—Great increase of sexual desire, with exhausting erections and pollutions, with hypochondriasis.

Diminished sexual desire, with suicidal despondency.

Induration of the testicles; warty excrescences on scrotum, prepuce, and anus; chancres that secrete an abundance of pus.

Chronic gleet, accompanied with condylomatous excrescences.

Sexual Organs, Female.—Menses too early and too profuse; blood acrid and makes the parts sore. Menses suppressed in dropsy, with great despondency; os indurated.

"Leucorrhœa, light yellow, especially mornings; uterus pro-lapsed, indurated; sub-acute and chronic metritis."—*Hg.*

"Pudendum over-sensitive; burning heat and intolerable itching."—*Hg.*

"Gonorrhœal discharge, glands of both groins swollen."—*Hg.*

General anasarca and dropsical symptoms during pregnancy.

Air-Passages.—"We note all the symptoms of a running cold in the head; congestion and catarrh of the entire bronchial lining, with dry and humid stages; cough with dyspnœa, and constriction of the thorax."—*Dr. Burnett.*

"Extreme tightness of the chest, with difficult breathing at varying times; great weight of the chest, especially a heavy weight in the sternum."—*Dr. Burnett.*

Chronic bronchitis; voice hoarse; throat inflamed, suffocative cough.

"Pulmonary catarrh, sub-acute, with pains in left side of chest."—*Hg.*

Heart.—Palpitation of the heart, with suffocating oppression of the chest; feeling as though the heart ceased beating for a while, and suddenly a hard thump is felt.

"Angina pectoris (next to Arsenic); with cardiac anguish; violent, irregular palpitation; heart greatly oppressed."—*Hg.*

Endocarditis, rheumatic, from secondary syphilis.

"Pulse small and frequent (dropsy); pulse large (angina pectoris); weak pulse (stenocardia)."—*Hg.*

In walking, the heart seems to shake about as if it were loose, with restlessness, anxiety, arising from the region of the heart, driving him from one place to another.

Beating of the heart causes great anxiety.

Back.—Various tearing, stitch-like pains about the body.

Tearing pains in all the joints.

"Great liability to catch cold; great sensitiveness of the whole body to all kinds of pain, so that the very thought of pain is almost the pain itself."—*Dr. Burnett.*

Upper Limbs.—Spasmodic motion of arms, with tearing pains in shoulders and all the joints.

"The arms and legs are numb and asleep in the morning on awaking; great lassitude."—*Dr. Burnett.*

Lower Limbs.—Exostosis, with severe nocturnal bone-pains, after syphilitico-mercurial affections; periosteum very tender.

Infiltration of the cellular tissue of legs; great œdema in dropsy, albuminuria, scarlatina, etc.

"Limbs cold, covered with sweat; or periostitis of foot."—*Hg.*

Periosteal inflammation, with intolerable bone-pains at night, worse from heat; exceedingly restless; of a syphilitic origin; caries of joints.

Skin.—Dry and shrunken; eczema; pustules; small red elevations; ulcers and scurf; secondary syphilis.

Cancerous glands, with induration and ulceration.

"Dropsies, from heart disease; liver affections; scarlatina and intermittent fever, with general anasarca."—*Hg.*

"Cured ascites, even after three successive tapplings."—*Hg.*

"Gold salts and Mercury salts both loosen the cohesion of the organic tissue. Both stimulate the absorbent, secreting, and excreting functions of skin, kidneys, and salivary glands. Gold employed for a longer period, initiates a peculiar metamorphosis of plastic life; differing from the Mercurials in stimulating more the activity of the heart and blood-vessels, but not so much the organic tissue as dry Mercury."—*Hg.*

Fever.—Hætic fever, with copious, offensive night sweats.

"Copious cold sweat after scarlatina and variola."—*Hg.*

"Violent rheumatic fever, with painful swelling of the joints; leaving the joints and attacking the heart."—*Hg.*

Fever from secondary syphilis, with periosteal inflammation.

Over-sensitiveness to all pain and cold air; very restless.

"Chilliness and rigors are very prominent symptoms; cold hands and feet, chill down the back; the whole body shivers with cold, can not get warm all night; followed by fever and great thirst; morning perspiration all over."—*Hah.*

In old people, where the scrofulous element predominates, afflicted with dyspnœa from cardiac difficulty, and great debility, with anasarca. Gold will rejuvenate such people.

Aggravation.—Mornings; on getting cold; while reposing at night the warmth of the bed-clothes is intolerable.

Amelioration.—By moving; while walking; on getting warm; in cold, wet weather.

ACIDUM BENZOICUM.

Benzoic Acid.

Chemical preparation, from Gum-benzoin. Trituration. Tincture, Class IV.

Through the spinal nervous system, Benzoic acid has two special centers of action :

- I. URINARY ORGANS. *Congested; Secretions Putrid.*
- II. JOINTS AND FIBROUS TISSUE. *Gouty Diathesis.*

Urinary Organs.—Benzoic acid causes congestion of the kidneys, with an increased secretion of extremely offensive urine.

Dr. Ure says : "Benzoic acid causes the disappearance of uric acid from the urine, which is replaced by hippuric acid." On the contrary, Dr. Keller says : "Benzoic acid is converted into hippuric acid at the expense, according to Garrod, of the urea, the uric acid meanwhile remaining undiminished." The only logical conclusion would seem to be that the effect of Benzoic acid upon the urine is variable. All authorities appear to agree, however, in asserting that the activity is increased. It delays the decomposition of urine and the formation of carbonate of ammonia, and changes the already-formed carbonate into innocent hippurate of ammonia.

Fibrous Tissue and Joints.—Benzoic acid produces a rheumatic, gouty diathesis, and the joints become filled with the uric acid phosphates.

Therapeutic Individuality.

Rheumatic and gouty subjects, with excessively fetid urine, smelling like that of horses ; very high colored ; gravel, urine muco-purulent and extremely offensive.

It has cured, and often diminished, the formation of uric acid calculi, when the urine is fetid.

Irritable bladder, with enuresis, and many rheumatic symptoms ; enuresis nocturna of children.

"Dysuria senilis ; bladder irritable ; nephritic colic ; urine deep red, of a strong odor like that of horses, excoriating."—*Hg.*

"Dark, high-colored, very fetid, offensive urine ; often contains mucus and pus, with calculous or gouty diathesis."—*Hg.*

Urine hot, scalding, extremely offensive; can hardly stay in the room where it is, the smell is so cadaverous.

"I have found it very serviceable in old people, when a high-colored and strong-smelling urine dribbles away, partly from the irritation it causes, and partly from the want of power on the part of the bladder to retain it."—*Hughes*.

Urinary calculi, in rheumatic or gouty subjects, with fetid urine.

Digestive Organs.—Glossitis; tongue extensively ulcerated.

"Angina faucium and tonsillitis, with strong urine."—*Hg*.

Feeble digestion; loathing of food; much thirst; nausea, vomiting, burning and distention of the stomach.

Abdomen. Severe cutting pains, with much flatulence.

Obstruction of the liver, with fine stitching pains.

Stool.—White, fetid, watery, copious, and exhausting stools, in infants where the urine smells like that of horses.

"Stools copious, watery, grayish-white, like dirty soap-suds; excessively offensive, scenting the whole house, like the fetid urine; putrid; bloody; frothy and scanty."—*Hg*.

"Diarrhœa of children; stools copious, watery, clear colored, very fetid; urine deep red, and uncommonly fetid."—*Hg*.

Sexual Organs, Male.—Chronic gonorrhœa; smarting of the urethra, and urine excessively offensive.

Warty excrescences and condylomata that discharge much.

Sexual Organs, Female.—Menses too early, with much debility, especially after menstruation; urine very fetid.

Amenorrhœa and prolapsus uteri, with fetid urine.

Gastric derangements when ascending a height.

Lochia last too long; very acrid and fetid.

Air-Passages.—Bronchitis, with asthma, and rheumatism.

"Dry, constant hacking cough; followed by expectoration of green mucus."—*Hg*.

Much oppression of lungs; asthenic pneumonia; great weakness; difficult breathing; promotes expectoration.

Great weakness; difficult breathing; cough and asthma.

Asthma, with inflammatory rheumatic complaints.

Catarrhal diseases of lungs; when great weakness prevails; much mucus in the throat; hoarseness; dyspnœa.

Asthenic asthma, bronchitis or pneumonia, rheumatic form.

Typhoid pneumonia; great debility, and strong-smelling urine.

Heart.—"Awakens after midnight with violent pulsations of the heart and temporal arteries; gouty rheumatism affecting the heart; hard, frequent pulse; fever; heat; sweat.

Sternum sensitive to touch; rheumatoid affection of muscles.

Back.—Rheumatic myelitis; dull pain in renal region; loins stiff; great weakness of the lumbar region.

Upper Limbs.—Gouty deposits in all the joints.

Tearing pains deep in the bones; fingers greatly swollen, with tearing pains; panaritium.

Ganglion. Dr. Bayes has several times cured ganglion of the wrist. (Used locally, in proportion of five grains to one drachm of lard. Mrs. Dr. J. N. Wilkins has confirmed this.)

Lower Limbs.—Rheumatism of the joints, with limy concretions; pains shift often; knee-joints crack from dryness.

"During the night, gout commences in right great toe, with redness and tumefaction; syphilitic rheumatism; urine fetid.

Pains commence in the right and go to the left side.

"The more Benzoic acid is used in gout, the more it will be valued."—*Hg.*

Emaciation, weakness; weariness; rheumatic, tearing pains.

Skin.—Ulcers; syphilitic spots; wart-like condylomata on the genitals and anus; itching and burning of the skin.

Urticaria in rheumatic, gouty subjects; mind much depressed.

Aggravation.—In cold air, and mornings.

Amelioration.—In warm air, and evenings

ACIDUM CARBOLICUM.

Carbolic Acid.

Chemical preparation. Alcoholic solution.

Antidotes.—Lime-water freely; Alkalies, Soap, Fixed Oils, Demulcent Drinks.

Through the cerebro-spinal nervous system, Carbolic acid has four special centers of action :

- I. BRAIN. *Congestion, Insensibility; Convulsions.*
- II. BLOOD. *Septic Condition.*
- III. DIGESTIVE ORGANS. (UPPER PORTION.) *Inflamed.*
- IV. LOCALLY. *Anæsthetic and Highly Antiseptic.*

Cerebro-Spinal System.—The brain is greatly congested, with vertigo, insensibility, convulsions, stertorous breathing, cold perspiration, great prostration, and death.

As a poison, in doses of an ounce or more, "an intense burning pain is felt in the throat and œsophagus, followed by staggering as if from intoxication, and then by complete insensibility; the face is pale; the lips and hands livid; the pupils usually contracted; though in rapid death they may be dilated; the pulse is generally above the normal rate, but sometimes much below it, and at the same time soft and compressible; respiration stertorous, and mucous and sonorous rhonci fill the lungs; tongue swollen. The skin, breath, urine, and fæces, if any, smell strongly of the Acid; the urine is often copious, and generally passed with difficulty. Death takes place, sometimes instantaneously, but generally in from one to three hours."—*Stille*.

Carbolic acid stimulates the respiratory center and the peripheral nerve-endings.

Post-Mortem Lesions.—"Skin purplish; about the angle of the mouth, it is apt to be discolored and shriveled by the caustic action of the Acid; the mucous membrane of the mouth white; the tongue and œsophagus dry, brown, and shrunken, and its epithelium readily detached; mucous membrane of the stomach reddened, especially along the edges of the rugæ; sometimes it presents whitish patches and is easily peeled off; its epithelial layer is sometimes cornified. The air-passages filled with frothy

mucus; lungs congested; and the brain very much congested with venous blood, and some portions of the brain are bathed with serous effusion."—*Stille*.

Blood.—This is in a septic condition; and we have produced putrefactive affections, such as carbuncle and putrid diseases.

Gastro-Intestinal Canal.—The upper portion becomes congested and inflamed.

Locally.—It is used as an *anæsthetic*; and, in minor surgery, it is of great value. To illustrate its action, Dr. Smith painted on his arm a spot an inch in diameter, with an 85-per-cent solution of Carbolic acid. For a minute it caused slight burning, then the skin became quite numb, whitened, and shriveled. At this point he made an incision half an inch long without even feeling the knife, the wound healing as usual. Three hours afterward he thrust a needle into the skin, without causing pain or vesication. He found that, when incising whitlows, the application of the Acid greatly lessened the pain.

Carbolic acid destroys the lowest forms of animal and vegetable life, and prevents fermentation and putrefaction. It does not act on putrid gases, but kills the living germs developed in the process of putrefaction. The vapor of the acid kills all forms of insects and animal parasites. In putrefactive, sloughing wounds, the lotion destroys all fœtor, facilitates the separation of the slough, and causes healthy granulations to spring up.

As a local remedy for the surgeon, its usefulness can not be over-estimated; and, for full particulars, see works on surgery.

Therapeutic Individuality.

The main use of Carbolic acid is found in the practice of surgery, as an antiseptic in all wounds or sores where there is a tendency to putrefaction. The antiseptic properties of the Acid destroy the atmospheric germs or infusoria which keep up putrefaction. It does not act on putrid gases, but kills the living germs developed in the process of putrefaction, striking directly at the cause, and not the effect. Its powerful antiseptic properties make it a valued agent for disinfection.

Three preparations of Carbolic acid are used by surgeons:

1. Carbolic acid and boiled linseed, or other fixed oil, in the proportion of one to five.
2. Carbolic acid and water, in proportion of one to thirty.

3. Carbolic oil and whitening, in the proportions requisite for the consistence of soft putty.

The results of the employment of these preparations in surgery may almost be called wonderful. In all amputations, the cut surfaces are bathed with Carbolic acid lotion, the edges coaptated, and a paste of the Acid applied, so as to prevent the air from coming in contact with the wound; and it all unites by first intention. In all forms of abscess, after opening and evacuating the pus, wash with the lotion, and seal with the Carbolic paste.

In putrefactive, sloughing wounds, the lotion destroys all fetor, facilitates the separation of the slough, and causes healthy granulations to spring up. It arrests fermentation produced by organized matter.

Its action upon the brain so closely resembles apoplexy that we should expect good results in this disease; and it has cured hydrocephalus.

Vertigo; confusion of the head; delirium; stupor; sleeplessness; restlessness; much dreaming; and frontal headache; or congestive headache with confusion of the mind; pupils dilated; sight confused, with roaring in the ears.

Digestive Organs.—Apthous inflammation of the mouth, with salivation, and much burning of the mouth.

Diphtheritic inflammation of the fauces; dark-colored membrane; breath excessively fetid, much fever of a septic character, and great prostration. (Internally, and locally as a spray.)

Loss of appetite; thirst, and slimy taste in the mouth.

Stomach. Eructations; nausea and vomiting, with great flatulency; morning nausea and vomiting, with congestion of the brain.

Abdomen bloated; flatulence; soreness in lower bowels; flatulent colic; with watery diarrhoea and constant urging to stool; cholera infantum, with brain symptoms.

Inflammation of mucous membranes, with foul discharges, accompanied by great prostration.

Urinary Organs.—Urine increased, with frequent micturition. Or very high-colored urine filled with the phosphates. In some cases, it will be useful in albuminuria after malignant scarlatina, etc.

Sexual Organs, Male.—Sexual passion excited, with nightly emissions, followed by great relaxation of the organs.

Sexual Organs, Female.—Ovarian irritation (left); menses too late, and, when they do appear, they are too profuse; menorrhagia.

Endometritis, with foul discharges. Internally, and applied locally by the use of cloth tents, once a week. No known remedy can take its place as a caustic to arouse healthy action in the inflamed tissues. Dr. Ringer uses it as an injection directly into the uterus, diluted with glycerine and water; and, in uterine ulceration and cancer, it can be used freely in the vagina as an injection. It relieves the pain in a great measure, dissipates partially the inflammation and hypertrophy, and removes entirely the foul odor found in malignant ulceration.

In vegetations, condylomata, mucous patches, and ulcers of the cervix, the undiluted Acid applied locally is admirable.

In prurigo of vulva, the undiluted Acid often leads to a cure.

When the lochia are characterized by foul-smelling discharges, injections of dilute Carbolic acid will arrest the fetor at once.

Air-Passages.—Dry, hard, tickling, spasmodic cough; chest feels too narrow; laryngitis, with stertorous breathing; pertussis.

In chronic bronchitis, with profuse fetid expectoration, and not much dyspnoea, inhalations of dilute Carbolic acid spray, not only lessen the abundant expectoration, but remove the excessive fetor of the breath. In gangrene of the lungs, no remedy can take its place.

Skin.—In eczema, pityriasis, psoriasis, and vesicular eruptions of the skin, with much burning and itching; and many cases of the itch have been cured with the Carbolic lotion. For all putrefactive, sloughing ulcers and wounds, the local use of this Acid can not be dispensed with; it not only removes the fetor, but causes healthy granulations to spring up.

All kinds of animal parasites on the human body, such as lice, acari, fleas, chigo, worms, and larvæ, are killed by the local use of this Acid.

Extremities.—Trembling, convulsions; epilepsy, and nervous affections of an anæsthetic character; paralysis; muscles stiff; much pain in the neck and back; aching in shin bones.

Septic fevers with much debility, with foul secretions.

Aggravation.—In open air, and morning.

Amelioration.—From motion.

ACIDUM FLUORICUM.

Fluoric Acid.

Chemical preparation. Aqueous solution: in gutta-percha vials.

Antidotes.—Alkalies in milk; Magnesia, Lime, Soap, Bland Drinks.

The sphere of action of this drug is not fully understood; but, from what I can learn, I shall place it in the organic group, and believe its main action is spent on the five following tissues:

- I. LYMPHATIC GLANDULAR S. *Indurated. THYROID. Goiter.*
- II. MUCOUS MEMBS. *Chronic Congestion and Inflammation.*
- III. SKIN. *Sour, Glutinous Perspiration; Alopecia.*
- IV. OSSEOUS SYSTEM. *Inflammation; Caries.*
- V. VENOUS SYSTEM. *Varicosis.*

Lymphatic Glandular System.—This Acid especially affects the thyroid gland, producing bronchocele. M. Maumene believes that the cause of goiter is the presence of fluorides in drinking-water. The water is thoroughly impregnated in goiterous districts with the fluorides. A permanent goiter was established in a dog by a five-months course of the Fluoride of Potassium. Inflammation and suppuration of the lymphatics and liver.

Mucous Membranes.—It produces chronic congestion and inflammation of the fauces, stomach, intestines, and genito-urinary organs.

Bones and Teeth.—It produces caries, and pains in bones.

Skin and Hair.—Here it causes a glutinous, sour perspiration; itching and redness of old cicatrices, with falling-off of the hair; baldness, and congestion of the head.

Venous System.—Varicosis, especially of the lower extremities, with varicose ulcers of the skin.

This Acid is the most caustic and highly corrosive substance known. It readily dissolves silica and silicic acid. As a solvent of silex in the animal economy, it is especially useful. Glass is energetically acted upon by this Acid; its transparency is in-

stantly destroyed, and heat is evolved. Its vapor is more pungent than chlorine, or any of the irritating gases.

Therapeutic Individuality.

In action this remedy closely resembles Silicea; and its great sphere of usefulness will be found in suppurative diseases of a sub-acute and chronic nature.

Great loss of memory; forgets almost everything.

Is well satisfied with himself; fears nothing.

Very anxious and depressed in mind; ill humored.

Head feels full, with pain in the occiput; feeling in the brain as if on the verge of being struck with apoplexy.

Congestion of blood to the head and scalp; the hair becomes dry, breaks off, and falls out (syphilis).

Caries of the skull bones, with nightly bone-pains. Syphilitic erosions; mucous tubercles; exostosis, with nightly bone-pains resembling those of Mercury.

Eyes.—"Fistula lachrymalis; increased lachrymation."—*Hg.*

"Sensation as if strong wind were blowing in the eyes; must tie them up and keep them warm."—*Hg.*

Chronic ophthalmia, feeling of sand in the eye, must wink constantly.

Retinal excitement with red photopsia.

Nose.—Nose obstructed; red; swollen and inflamed; chronic nasal catarrh, with ulceration of the septum; fluent coryza.

Face.—"Tubercles on the forehead and face, with ulceration."—*Rauc.*

Face constantly hot, wants to bathe it continually in cold water.

Mouth.—Rapid caries of the teeth; toothache worse from cold drinks; teeth and mouth coated with dark mucus.

"Tongue; vivid red at tip and edges; yellow in center; whitish and dry; or deeply fissured in all directions; phagedenic ulcer in the center."—*Hg.*

Acrid, foul taste, with copious salivation.

Chronic catarrhal inflammation of the pharynx and fauces, with ptialism; especially if syphilitic; soft palate and uvula intensely red, much tumefied; breath fetid, voice nasal; so much mucus can not sleep.

"Throat peculiarly sensitive to cold, slightest exposure resulting in inflammation; great pain; deglutition impeded; hawking phlegm mixed with blood."—*Hg.*

Stomach.—Craves cold water, and is constantly hungry.
Nausea and bilious vomiting, with purging.
Great feeling of fullness and weight in the stomach.

Liver.—Enlarged and indurated, from abuse of whiskey; it is very sensitive to pressure. Ulceration of the liver. Ascites from hepatic induration and portal congestion.

Abdomen.—"Great tension and dropsy of abdomen."—*Hg.*
Great feeling of emptiness in abdomen, relieved by bandage.

Stool.—Bilious diarrhœa, worse mornings, and after drinking. Very loose yellow mucous stools, with griping and tenesmus. Constipation, with great varicosis of the hæmorrhoidal veins. Copious hemorrhages after a constipated stool.

Urine.—Urine scanty, high colored, with much burning and painful in passing; urine pungent and fetid.

Sexual Organs, Male.—Great sexual excitement, especially in old men; gleet discharges from the penis.

"Dropsical swelling of the penis; hydrocele."—*Hg.*

"Oily, pungent-smelling sweat on the genitals."—*Hg.*

Syphilitic erosions; secondary and tertiary, with nightly bone-pains.

Sexual Organs, Female.—"Much congestion of the sexual organs; menses too early, too profuse; blood thick, in clots; she fears nothing, and is well satisfied with herself."—*G.*

Acrid, excoriating leucorrhœa.

During pregnancy, has much congestion of blood to the head.
Nipples very red, sore and cracked.

Air-Passages.—Dryness of the larynx, with weak, hoarse voice; breathing difficult; chest oppressed.

Cough, dry, short and frequent.

Dropsy of the chest; hydrothorax; pulse frequent, small, and often irregular; patient can not lie down; dyspncea.

Upper Extremities.—Rheumatism, especially venereal; arms and shoulders are very lame and pain much.

Hands very weak and feel numb; they burn much.

For whitlow, use a solution of one-eighth of a grain to the ounce of water; apply with compress. This will abort many cases.

Acute pricking pains in the ends of the fingers; nails grow with great rapidity.

Lower Extremities.—Caries of the bones, with severe nightly bone-pains, and great prostration.

Feet and hands excessively moist.

Lameness in the back, hip, and legs.

Synovitis of the knee-joint; much pain, followed by dropsy.

Great anasarca, the œdema extends the whole length of the leg; in dropsy of the chest and abdomen.

Feet hot and burn much.

Varicose veins upon the legs, tend to ulceration.

Corns inflamed and very sore. (Use lotion. Of great value.)

Skin.—In secondary and tertiary syphilis, with squamous eruptions on the skin; dry eruptions; erosions, mucous tubercles, and elevated blotches; skin sallow.

Frequent inclination to small boils; carbuncles.

"Ulcers, discharge copious; worse from warmth; better from cold. Old cicatrices become red around the edges; surrounded by itching vesicles; itch violently."—*Hg.*

Nævus, flat, and irritated.

"Perspiration glutinous and sour."—*Hughes.*

Bronchocele has been rapidly cured with this Acid.

Many remarkable cures of goiter have been reported.

The sweat promotes excoriation and decubitus; burning pains confined to small spots.

Fever.—No chill, but much heat and sour perspiration; slightest motion produces nausea.

Rheumatic fever, or gout, with sour, clammy, fetid sweat.

Hectic fever, with sour sweat, emaciation and great debility.

People that look prematurely old.

Aggravation.—Morning; on rising from bed.

Amelioration.—From motion.

ACIDUM HYDROCYANICUM.

Prussic Acid.

Chemical preparation. Aqueous solution.

Antidotes.—Atrop., Camph., Ammon., Coff., Nux vom., Verat. vir., Op., Alkaloids.

Through the cerebro-spinal nervous system, this Acid has four special centers of action :

- I. CERE BRO-SPINAL SYSTEM. *Tonic Spasms; Motor Paralysis.*
- II. MUSCLES. *The Life is Struck Down as if by Lightning.*
- III. BLOOD. *Disorganized; Black and Uncoagulable.*
- IV. CIRC'N. *Cardiac Ganglia Paralyzed; Vaso-Motor Paralysis.*

Cerebro-Spinal System.—The action of this Acid upon the brain is intensely rapid and profound, perfectly resembling that of epilepsy, in which disease, we have contraction of the cerebral arteries from irritation of the cervical sympathetic, which is regarded as the proximate cause of epilepsy. Consequently, we must believe that this drug, at least in part, acts through the same channel. But the most of its action is spent upon the *corpora olivaria*, medulla oblongata, and anterior portion of the spinal cord. Its action upon the pneumogastric nerve, and through this upon the lungs, heart, and stomach, is the most interesting and useful action of the drug.

"The tonic spasms excited by this Acid are nowhere more marked than in the organs of respiration. This is the general testimony of all toxicologists. Spasmodic respiration is noted by all observers of acute poisoning; and Wood mentions, among the chronic effects of the vapor, 'difficult respiration, constriction of the throat, feeling of suffocation. The only marked post-mortem phenomenon,' he writes, 'is a universal venous congestion, proving that the circulation has been arrested in the lungs.'

"Prof. Preyer, of Jena, says that 'the lethal action of Prussic acid is due to embarrassment of the lungs and heart by its action on the terminal branches of the vagi in these organs.

"I believe, with Kolliker, 'that it paralyzes, first the brain, next the cord, and then the motor nerves; the paralysis extending from the trunk to the periphery. It paralyzes the heart, its action

ceasing in diastole. The voluntary muscles soon lose their irritability and become stiff.'—*Hughes*.

Medulla Oblongata and Pneumogastric Nerve.—Dr. I. Jones, of Nashville, says that this Acid "acts primarily, directly, and chiefly upon the medulla oblongata and the spinal cord, and its ability to produce death, is dependent upon its action upon the medulla oblongata."

According to Dr. Preyer, "during the three stages of Hydrocyanic-acid poisoning [stage of asthma, stage of convulsions, stage of asphyxia], the respirations are lessened in frequency; and, during the latter moments of life, the efforts at breathing are very distant, and finally cease before the arrest of cardiac movements." These respiratory phenomena of Prussic-acid poisoning are in all probability due to an influence exerted directly upon the respiratory centers in the medulla oblongata, and not upon the peripheral ends of the vagi.

Through the filaments of the vagi distributed to the stomach, we have nervous dyspepsia well marked, as shown by tenderness in the epigastrium, flatulence, severe gastralgia, nausea, but very seldom vomiting, pyrosis, with palpitation of heart and dyspnœa.

Spinal Cord.—"This Acid acts especially upon the anterior portion of the cord, as shown by general spasm of the muscular system, which is soon followed by debility of the muscles of animal life, while the heart and thorax act more rapidly to compensate for their feebleness; but soon more or less general spasms set in, and death ends the scene. Sometimes the life of the muscular system is struck down as if by lightning.

"The experiments of Kolliker are in agreement with those of Stannius, that the muscle dies very much more quickly in a solution of this Acid than does the nerve, losing its excitability in from seven to eight minutes. This rapid destruction of muscular irritability by the local application of Prussic acid was first noted by Coullon in 1819. Yet, it is most probable, that, when given internally, it acts almost as rapidly upon the nerve-trunks as upon the muscles; since Kolliker noted, that in some cases galvanization of the nerve was incapable of causing contractions in the tributary muscles, although the latter responded feebly to direct stimulation. This has been corroborated by Dr. Funk. It is a question of interest to decide as to the cause of the convulsions produced by this Acid. I have found that they do not occur after section of the cord in parts below the point of section, and that they are therefore *cerebral* in origin."—*H. C. Wood*.

Upon the peripheral sensory nerves, this Acid acts as a paralyzant, destroying their functions.

Blood.—This is in a dark fluid form and uncoagulable. *Post-mortem* appearances: "The venous system is gorged with dark-colored blood; the veins of the brain and spinal marrow, of the solid viscera of the abdomen, the lungs, as well as those emptying into the heart, and the right side of this organ itself, are distended with blood."—*Wood*.

Many think this drug acts mainly through the blood upon the cranio-spinal system, producing its lightning-like effects; but Lewisson has proved that the action of the poison upon the nervous system is a direct one, and not due to changes in the blood; for the Acid acts as well upon the bloodless salt frog as upon the normal batrachian.

Heart and Circulation.—Upon the heart, this Acid produces instantaneous diastolic arrest, which is either permanent or re-occurs after a few slow, feeble beats, followed by rapid action for a short time, and then slow, feeble pulsations. This is caused by the cardiac inhibitory apparatus being first stimulated, which is soon followed by paralysis. Preyer attributes very great importance to the cardiac vagus in Prussic-acid poisoning, and, when the doses are not too large, attributes the whole of the symptoms to the changes in the innervation of the vagus; that is, to a temporary irritation or paresis of the inhibitory vagus. The absolute stoppage of the heart by large doses, is attributed to a direct paresis of the automatic nerve centers of the heart itself. The action of this Acid on the circulatory organs originates partly in the respiratory disturbance, and partly in a directly paralyzing effect of the poison on the *vaso-motor nerves*.

Poisonous Effects.—In a large dose, Prussic acid kills immediately, the victim frequently uttering a loud cry, and expiring from cardiac syncope. If the quantity taken be smaller, symptoms of suffocation supervene from paralysis of the respiratory center, and, if the process be more gradual, from deficient supply of oxygen in the blood. Other symptoms noted are convulsions, great muscular prostration, dilatation of pupils, and quick, feeble, irregular pulse. If the poison be taken in a concentrated form, death may ensue very rapidly, in probably less than a minute. Guinea-pigs, after inhaling some of the gaseous Acid, die in from one to fifteen seconds; one died in one second, according to Preyer.

Therapeutic Individuality.

Diseases of the cerebro-spinal system that come on with great suddenness and severity; mind depressed and very irritable.

Sudden cerebral congestion, with profound coma; preceded by vertigo, weight and great pain in the back of the head.

Prolonged sleeplessness, or very heavy sleep; fear and great anxiety.

Sudden supra-orbital neuralgia, with much flushing of the same side of the face.

"Spasms when the muscles of the back, face, and jaws, are principally affected, and the body assumes a bluish tint."—*G.*

Long fainting spells, with palpitation of the heart, and rapid, feeble pulse. Eyes sunken; glossy; blindness.

Digestive Organs.—Great sinking sensation at the epigastrium.

Fluid runs gurgling down the œsophagus.

Intense gastrodynia, and enterodynia, with much flatulence. Here this remedy has been of untold value. In these cases the heart greatly sympathizes with the dyspeptic symptoms.

Enteralgia, with distention of the abdomen. (Many cures.)

Cholera, with marble coldness of the whole body, pulselessness, and rapid progress of the disease toward asphyxia.

Involuntary stools, hiccough, and great prostration.

Sexual Organs, Female.—Gone or sinking sensation in the epigastrium, with frequent hot flashes, at the climacteric.

Has acted well in hysteria, epileptic form.

Uremia, asphyctic form.

Retention of urine in Asiatic cholera.

Involuntary urination.

Air-Passages.—Whooping-cough; dry, spasmodic, suffocating cough. (Has cut many cases short.)

In nervous cough, with dyspnœa, it acts nicely, but never has made many cures of asthma; however, it has acted well where the minute bronchial tubes were chiefly involved, with puffy face and feeble action of the heart; or the heart's action may be violent.

Skin.—Scarlatina or variola; eruption dark, livid color; rapid, feeble pulse, coma, and great prostration.

Itching; formication; erythema; skin very pale.

Aggravation.—Afternoon and evening.

Amelioration.—Open air, and from coffee.

ACIDUM MURIATICUM.

Muriatic Acid.

Chemical preparation. Aqueous solution.

Antidotes.—Alkalies, Magnesia, Soap, Bland Drinks, Bry., Camph.

Through the vegetative nervous system, Hydrochloric acid has four special centers of action:

- I. MUCOUS MEMBRANES. *Inflammation; Ulceration.*
- II. SKIN. *Vesicular and Papular Eruptions.*
- III. BLOOD. *Septic Alkalinity; Diminished.*
- IV. GLANDULAR SYSTEM. (SALIVARY.) *Salivation.*

Mucous Membranes.—This Acid especially acts upon the mucous membranes of the gastro-intestinal tract, producing inflammation, ulceration, and deposits of mucus like pseudo-membrane, with fungoid growths.

The most of its action is spent upon the mouth and the anus; and these localities are the centers for its greatest therapeutic action.

Skin.—Here Muriatic acid produces vesicular and papular eruptions, as well as putrid ulceration.

Blood.—This Acid diffuses itself into the blood with more rapidity than any of the acids, rendering the alkaline blood acid, and producing a septic condition similar to that found in malignant asthenic fevers, with high temperature and great prostration of the vital forces.

Glandular System.—This Acid acts upon the salivary glands, producing salivation, and on the glandular system of the intestinal tract. Their normal secretions are increased; and massive doses produce congestion, inflammation, and destructive ulceration, with chronic diarrhœa.

Therapeutic Individuality.

Asthenic diseases, with moaning; unconsciousness; irritable, fretful, peevish; disposed to anger, and great restlessness, vertigo; a whirling sensation around in the head.

Restless sleep, anxious dreams; very sleepy; eyes closed from weakness.

"Heaviness in occiput; sight obscured; glands swollen."—*Hg.*

"Headache as if the brain were torn or beaten to pieces; worse on moving the eyes or sitting up; better from moderate exercise."—*Hg.*

"Steady, sharp pain in the back part of the head, with a heavy feeling as if the occiput were filled with lead."—*Hg.*

Heat on the top of the head; tearing in right parietal bone; hair sore, as if it were standing on end.

Ears.—Hardness of hearing, or over-sensitive to noise. In low, asthenic fevers.

Eyes.—Muscular asthenopia; sharp burning pain from left to right eye, relieved by washing. Photophobia during day.

Obscured sight; pupils contracted; pain in occiput. (Typhoids.)

Nose.—Long-lasting nosebleed, in asthenic fevers and whooping-cough; fetid discharges; obstructions; acrid coryza; discharge of pus.

Face.—Glowing red cheeks, with heat in the face; face suddenly red with coma; scarlatina; typhoid.

Lower jaw hangs down, from debility, in asthenic fever.

Mouth.—Gums swollen, bleeding, ulcerating; mouth as if glued up with insipid mucus; much salivation.

Taste acrid and putrid, like rotten eggs, with ptialism.

Aphthæ, and fetid ulcerations of the mouth and throat.

Mouth dry, tongue heavy and paralyzed; ulcers on the tongue, the patient can not move it at all, even if conscious. In its local use on the mouth, this Acid does wonders; about specific in aphthæ and ulcerations.

Inflamed, swollen, and tender salivary glands; ulcers in the mouth and throat that slough and extend together, with excessively fetid breath.

"It is one of the few medicines which have a specific action on the tongue; it has been used successfully for many affections of that organ."—*Hughes.*

"Mucous lining of throat and fauces deep, dark red, swollen, and burning; rawness and smarting; covered with grayish-white diphtheritic deposits; attempting to swallow produces violent choking spasms."—*Hah.*

Anorexia, great thirst; putrid taste, or bulimia.

Stomach.—Putrid eructations; nausea; vomiting; sensation of an empty, gone feeling, not relieved by eating.

Atonic dyspepsia, with excessive formation of acid, manifested by eructations, pyrosis, heartburn, and ulcerative stomatitis. (Of great value in doses of from five to twenty drops of 2x before meals.)

Abdomen.—Great distention of abdomen with gas, in indigestion, and low, asthenic typhoids.

Stool.—Diarrhœa, dark, profuse, green, slimy, bloody, and often involuntary. Asthenic fevers.

"Watery diarrhœa; stools and urine involuntary."—*G.*

"Diarrhœa with intolerable itching of the anus, which is sometimes so sore that it can not be touched."—*G.*

"Varices of the anus, which are exceedingly sore to the touch; much prostration."—*G.*

"Largely protruding piles; bluish, and extremely sensitive and painful."—*G.*

"If the anus be very sensitive, either with or without hæmorrhoids, Muriatic acid is sure to be the right remedy."—*G.*

"Exceeding tenderness of the anus; she can not bear the least touch, not even of the clothes."—*G.*

"Can not bear the slightest touch upon the anus, which often itches violently, and is not relieved by scratching."—*G.*

Urine.—Urine red, frequent, and scanty, in asthenic fevers.

"Slow emission of urine; bladder weak; must wait a long time before urine will pass; has to press so that the anus protrudes; urine involuntary."—*Hg.*

Sexual Organs, Male.—Organs weak; impotency; watery, bloody gleet; much itching of the prepuce and scrotum.

Sexual Organs, Female.—Menses too early and too profuse.

"Very sad and silent during menstruation, as if she would die."—*G.*

"Menses too early and too profuse, with extremely sore hæmorrhoids, which sometimes itch terribly."—*G.*

Leucorrhœa, with exceeding soreness of the anus; either from piles or from fissure."—*G.*

"Uterine ulceration; putrid discharges; very sensitive; with stitches and pain in the vagina; attended with a great sense of weakness."—*G.*

Fever.—Sighing, with great debility; sliding down in bed; attended with an intermittent pulse.

"Febris stupida; constant sliding down in bed; groaning and moaning in sleep; muttering and unconsciousness while awake."
—*Raue*. [Puerperal fever.]

A general state of paresis in low fevers where there is much putrescence of the fluids. More chill than heat.

Great restlessness, in asthenic fever.

"Scarlatina maligna; intense redness rapidly breaking out all over the body, with great restlessness, anxiety, and coma; dark bluish-red fauces."—*Raue*.

Adapted to low, febrile condition of the blood; with ulcerations of mucous membranes, and fetid breath, and deep nervous exhaustion, in obstinate secondary syphilis, where the digestive nutritive functions are feeble and Mercury can not be borne.

Air-Passages.—Larynx sore, inflamed; dyspnoea; tickling in the chest, with dry, spasmodic cough; burning pain in chest.

Deep, sighing respiration, with much groaning.

Burning, bursting pain in chest, as if beaten.

Skin.—Painful, putrid ulcers; burn at circumference.

Blood-boils; black pocks; petechiæ; skin purple.

Malignant eruptive fevers; eruptions spread rapidly.

Copious night sweats.

Back.—Pressing, drawing, tired pain in lumbar region.

Has much pain in the os coccyx.

Bed-sores in low fevers, that burn much.

Upper Limbs.—Heaviness of the arms; numbness, coldness, and deadness of the fingers; the tips swell and burn much, with itching, hot palms.

Lower Limbs.—Great weakness of the legs; fevers.

Œdematous swelling of lower limbs, with shooting pains.

Cold, blue feet, in asthenic diseases.

"Chilblains (the Acid in rum applied externally); swelling, redness, and burning of the tips of the toes."—*Hg*.

Tearing pains in all the limbs during rest, better from motion; all the joints feel as if bruised."—*Hg*.

Great debility, eyes close; lower jaw hangs down; he slides down in bed; in asthenic fevers.

Paralysis of one side; tongue and sphincter ani.

Patient very sensitive to stormy, damp weather.

Aggravation.—Forenoon; open, cold air; stormy, damp, windy weather, and from exertion.

Amelioration.—Warmth; lying down, and evening.

ACIDUM NITRICUM.

Nitric Acid.

Chemical preparation. One part of Acid to three of distilled water.

Antidotes.—Alkalies, Magnesia, Sodium, Hep., Merc., Mez., Iod., Sulph.

Through the organic nervous system, Nitric acid has four special centers of action:

- I. MUCOUS MEMBRANES. *Inflammation; Destructive Ulceration.*
- II. GLANDULAR SYSTEM. *Congestion; Inflam.; Fetid Discharges.*
- III. SKIN. *Pustular Ulceration; Fungoid Growths; Perspiration.*
- IV. BLOOD. *Broken-down, Septic Condition.*

Mucous Membranes.—Most of the action of Nitric acid is spent upon the muco-cutaneous outlets of the body, where the mucous membranes are prominently exposed to the air (*mouth and anus*), producing inflammation and ulceration. "Its ptyalism and gingivitis suggest its Mercury-like affinity for the mouth, which is very strong; it antidotes its analogue here, and cures ulceration of the buccal mucous membrane. The same may be said of it as regards the throat. Then, leaping over the intermediate digestive tract, it exhibits a singular power over the rectum and anus. It has cured prolapsus, fistula, and even fissure. In the respiratory tract, it controls the ocular, nasal, and laryngeal mucous membranes."—*R. Hughes, M. D.*

In a fatal case of poisoning lasting eight days, "the usual lesions were found in the mouth, fauces, œsophagus, and stomach; but, although the small intestines were sound, the colon was intensely and deeply ulcerated. There had been complete suppression of urine. Medicinal doses produce a white coating on the tongue, and dryness of the mouth; after a few days the teeth begin to grow loose, and gums to bleed. At the same time

the flow of urine increases. Its longer employment occasions dyspepsia, colic, foul breath, headache, feverishness, debility, and constipation or diarrhœa."—*Stille*.

Dr. Ringer thinks that the alkaline bile and pancreatic juice neutralize the action of this Acid upon the small intestines; but, by the time the large intestine is reached, the alkali is neutralized, and then the colon is most powerfully affected.

The mucous membranes of the kidneys are also more or less acted upon by Nitric acid, as shown by the profuse, offensive urine, or entire suppression.

Lymphatic Glandular System.—It affects more especially the salivary glands and liver, exerting a specific action upon the salivary glands, producing ptyalism, or salivation; the teeth become loose, and the gums bleed from the least touch, with great fetor of the breath. This fetid breath, we believe, is produced by its action upon the lymphatic glandular system; as the lymphatics are found in the lungs, in immense quantities; and, their secretions being degenerated, the breath, passing over these perverted secretions, can not but become fetid.

Liver.—This Acid has a prominent action upon the liver, producing great and long-lasting congestion, hypertrophy, and jaundice. Dr. Rutherford has proved it to be a powerful hepatic stimulant.

Skin.—Pustular eruption, or rapid, destructive ulceration, tending to fungoid growths, condylomata, and sycosis.

Its local effect upon the skin is very diffusive and powerful, penetrating readily and deeply beneath the surface, with a continuous destructive action. This caustic power is often useful to the surgeon, in the removal of warts, condylomata, and phagedæna, especially syphilitic, etc.

Blood.—The vitality of the blood is destroyed, and a septic state produced, with a general broken-down, cachectic condition.

Therapeutic Individuality.

Diseases depending upon the presence of syphilitic, scrofulous, or Mercurial poison.

Syphilitic ulceration of mucous surfaces, with tendency to rapid destruction of tissue, irregular in shape, discharges very offensive. If in the nostrils, hard plugs form in the nares, hard to detach, and leaving a raw sore.

Secondary affections of syphilis, in broken-down, cachectic constitutions, accompanied with emaciation, debility, caries of bones; unhealthy ulcers upon the skin, hypertrophy of the liver, and great derangement of the nervous system, with hateful, vindictive people.

"In syphilis, its particular sphere is the mucous patches, mucous tubercles, and general weakness of the constitution, denoting that the system has been poisoned by Mercury, or shattered by the disease itself."—*Prof. Franklin*.

"Easily bleeding ulcers, look like raw flesh, with zigzag edges, and exuberant granulations on the base."—*G*.

Herpes; condylomata, tubercles, ulcers, and syphilitic eruptions, with sore, prickling, itching pains, especially soft chancres.

Syphilitic eruptions of the skin, in the advanced stage, with superficial ulcers, and pains in the bones.

"Small syphilitic warts and condylomata, kept constantly moist with a wash of diluted Nitric acid, are removed certainly and painlessly. A drachm or two to a pint of water."—*Ringer*.

Excessive prostration, especially in old people, with diarrhœa, and who sleep badly.

"Affections occurring after typhoid fever, especially if treated with Calomel."—*F*.

Mind.—Sadness, despondency, and great fear of death, with a sensation of extreme weakness, even to trembling.

Irritable, peevish, vexed at trifles; inclined to weep; loss of memory.

Congestion to the head, with morning vertigo; must lie down.

"Vertigo not only when stooping, and compelling to lie down, but in the evening after lying down, and early mornings."—*D*.

"Often anxious about his own illness; constantly thinking about his past troubles; mind weakened and wanders."—*D*.

Sleep very restless; frightful dreams; nightmare.

Head.—Headache aggravated by motion and succussion; head feels full, or as if it were tightly bound up in a vise.

Violent throbbing headache, coming on gradually toward morning, and going off after breakfast.

"Externally the head is sensitive as if contused, either all over or in certain spots pressed upon by hat or when lying down."—*D*.

"Pain in skull, as if constricted by a tape, worse evening and at night; better from cold air and when riding in a carriage."—*Hg*.

Hair falls off from congestion of blood to the scalp, from syphilis.

Humid eruptions; inflammatory swellings; caries of the bones.

Ears.—Otorrhœa; discharges of very offensive pus; cracking in ears, when masticating; Eustachian tubes obstructed; hardness of hearing, from abuse of Mercury; syphilis; caries of the mastoid process; auditory canal closed.

"Glandular swelling behind and below the ear, from which stitching pains extend into the ear; stitching pain in the internal ear and in the maxillary articulation."—*D.*

Eye.—Of great value in diseases of the eye, resulting from abuse of Mercury, and especially if from syphilis. Lids swollen, smart and burn much; conjunctiva inflamed; lachrymation, and agglutination of the lids; stitches in the eyes; condylomata that suppurate and bleed easily when touched. Gonorrhœal ophthalmia; conjunctiva very hyperæmic and chemosed; cornea dim; great photophobia; constant lachrymation and copious secretion of yellow pus, with excessive burning pains at night. (Locally and internally.) Syphilitic iritis, and opacities.

"Eyelashes of right side all point stiffly toward the nose."—*G.*

Nose.—Syphilitic ozæna, with discharge of offensive yellow mucus and pus; frequent epistaxis; dry coryza; throat dry.

"Green casts every morning from the nares."—*Hg.*

Condylomata on and in nostrils, bleeding on slight touch.

Swelling of the infra-maxillary glands; face yellow, or pale.

Mouth.—Margin of mouth covered with sores and blisters; lips dry, swollen, cracked; corners ulcerated.

Cadaverous smell from mouth; saliva acrid, makes lips sore.

Tongue red like a beet; ulceration of tongue; dry tongue; much fissured, so sensitive mildest food irritates; vesicles on tongue burn much.

Salivation and spreading ulcers in the mouth and throat, with foul breath; from abuse of Mercury; especially in secondary syphilis.

Swelling of the parotid and submaxillary glands, with loose teeth and bleeding gums, after abuse of Mercury.

Mouth full of putrid ulcers; bloody saliva, or mouth dry, with extremely fetid breath; ulcerations of the tongue, etc. Sore throat extending up into the nose; discharges profuse, thin, purulent matter, with intermittent breathing.

"Much nausea and gastric trouble, relieved by moving about, or riding in a carriage."—*G.*

Constant nausea, with heat in the throat; violent thirst.

"Fat food causes nausea and acidity."—*G.*

Digestion retarded; sour eructations of half-digested food; most symptoms occur after eating and at night; attended by much flatulence and copious perspiration.

Liver.—Jaundice, with aching in region of liver. Zagli has reported over fifty cases of jaundice cured with this Acid. The liver is enlarged from malaria, syphilis, or cirrhosis, with long-lasting congestion; ascites.

Stool.—Diarrhœa, stools green, curdled, and mixed with mucus, accompanied by much straining, especially if chronic; tympanitis.

In chronic diarrhœa, but few remedies can equal this.

Borborygmus, as if a boiler was working within the bowels; stools of mucus, or watery, with great prostration.

"Diarrhœa, great pain during and after stool, as though the anus was fissured."—*G.*

"Inclination to looseness of the bowels, with most violent cutting pain after stool, lasting for hours."—*G.*

Acute pain in the abdomen during stool, worse in the mornings.

Stools bloody, brown, and slimy, with great exhaustion.

"The patient is worse after twelve at night; violent cramp-like pains as if abdomen would burst, with constant eructations."—*G.*

"Old hæmorrhoidal tumors, secreting much slime, and bleed profusely after stool."—*G.*

Fissures of the anus, with proctalgia; pain in the rectum, as if being torn, or spasmodic contractions of the anus many hours after stool.

Feeling as if sharp sticks were being pressed into the anus, on the slightest touch; sticking pains are very characteristic.

"Smarting more in the rectum than in the anus, immediately after stool, and continuing two or three hours; sometimes prolapsus ani or discharge of blood accompanies these symptoms."—*G.*

Prolapsus ani, with much pain and smarting in the rectum and anus.

"Typhoid fever, with hæmorrhages; great sensitiveness of the abdomen; green, slimy, acrid diarrhœa, with tenesmus."—*Hughes.*

Hæmorrhoids and condylomata. It is an excellent remedy in piles with constipation, and great sensitiveness of the anus.

Urinary Organs.—Extremely offensive urine is its greatest key-note, and it is often filled with mucus, pus, and blood.

"The urine has an intolerably strong smell, like that of horses."—*G.*

"Active hæmaturia; urging after micturition, with shuddering along the spine."—*G.* [Urine often feels cold when being voided.]

"Small blisters on the orifice of the urethra and inner surface of the prepuce, forming chancre-like ulcers."—*G.*

Incontinence of urine in old people broken down with syphilis.

"Injections of Nitric acid, sufficiently diluted, have been employed with success by some eminent surgeons, and found to be a complete solvent for phosphatic calculi."—*Ringer.*

Albuminuria, especially in those that have had syphilis and have taken much Mercury; it is accompanied by excessive prostration.

In diabetes mellitus, it has often acted well.

Sexual Organs, Male.—Loss of sexual desire; no erections.

Increased sexual desire; urethra inflamed; painful to pressure; discharges mucus, blood, and pus, with much itching of the prepuce.

Balanitis and fig-warts after abuse of Mercury; gonorrhœa, discharge of bloody mucus; painful urination, chronic form.

Chancres after Mercury, especially with granulations, condylomata, deep ulcers, with ragged edges; bleed easily; secondary syphilis; brown-red spots; peeling off on discharging.

"Hard, brown nodules on scrotum; suppurating."—*Hg.*

Falling-off of the hair from the genitals, after syphilis.

Sexual Organs, Female.—Flesh-colored, brown or greenish leucorrhœa, with a feeling as if everything would press out of the vulva.

"Profuse brown, offensive discharge, between the irregular menstruations; cancer uteri; excrescences on cervix."—*Hg.*

Great itching of the vagina after coitus, stitches in the vagina when walking; vulva swollen and burns much.

"Menses too early, too profuse, and often irregular, with a feeling as if everything would press out of the vulva; pain in back, hips, and thighs."—*G.*

Leucorrhœa of stringy mucus, the inguinal glands are swollen, where syphilis is at the base of it, with stitches in the vagina; ulceration of the uterus.

Uterine hemorrhage from over-exertion; or uterine excrescences. Metrorrhagia after abortion or confinement.

Mammæ.—Atrophy of mammæ, with hard nodes.

Respiratory Organs.—Chronic dry laryngeal cough, with a stinging sensation, as if small ulcers were in the larynx.

Dry, violent cough, with great debility; the patient sad and gloomy

Whooping-cough, where it is dry and violent; will shorten many cases.

Cough, with general physical depression, loss of flesh; sleeplessness; fever; thirst; night sweats; dry paroxysmal retching, or emphysema, with muco-purulent expectoration.

Excessively hard, dry, racking cough, with complete ptosis of both eyes, resulting from the hard coughing.

Congestion of the chest, with heat, anxiety, and palpitation of the heart.

Neck and Back.—The cervical and axillary glands swollen. Neck stiff and sore from the least cold; stitches between the shoulders; neuralgia of the back, syphilitic rheumatism

Upper Limbs.—Aching and sticking pains; syphilitic rheumatism of the arms and fingers; joints much swollen.

Warts on hands; herpes between fingers; fingers feel numb.

Lower Limbs.—Often has cramps in the calves and soles of the feet at night.

"Tearing pains in the limbs at night; so weak obliged to lie down; pains come suddenly and leave suddenly."—*Hah.*

Sticking pains as from splinters, especially on touch.

"Offensive, profuse perspiration on feet, causing soreness, with sticking pains as if from walking on pins."—*Hah.*

Chilblains. (Locally and internally.)

Syphilitic nodes upon shin bones, with severe nightly pains.

Skin.—All kinds of syphilitic eruptions; skin generally unhealthy; tendency to ulceration; pains sticking like pins.

Foul-smelling perspiration of the feet, in weak, cachectic constitutions, the blood greatly impoverished; skin dry and scaly; syphilitic eruptions upon the skin; dark, dirty skin. Post-scarlatinal dropsy, with fetid breath; fetid discharges from the ears; fetid urine, and putrid condition of the whole body. Colliquative night sweats, with much emaciation.

Caries of the bones, sloughing, phagedæna, and gangrene.

Fever.—Intermittent fever. In India, eighty cases were cured out of ninety treated, seventy-five quotidian and fifteen tertian type. In sixty-three cases in this country, there was a like

degree of success. Dose, ten drops, properly diluted, three times a day. Acts better in long-lasting chronic cases, where the liver is involved and the patient's blood is anæmic, with a general cachectic condition.

It is also useful in typhoid and remittent fevers.

There is much chilliness and long-lasting fever, and copious sweats.

People that are lean, with black hair and complexion, and take cold easily.

Aggravation.—Evenings and latter part of night; warm room.

Amelioration.—While riding in a carriage; and cold weather.

ACIDUM PHOSPHORICUM.

Phosphoric Acid.

Chemical preparation. Aqueous solution.

Antidotes.—Alkalies, Ferrum, Nux vom., Coffea, Camphor, China.

Through the organic nervous system, Phosphoric acid has five special centers of action:

- I. CEREbro-SPINAL SYSTEM. *Prostration, from Loss of Nutrition.*
- II. DIGESTIVE ORGANS. *Atony of the whole Apparatus.*
- III. BLOOD. *Anæmia. Passive Hemorrhages.*
- IV. SKIN. *Condylomata. Septic Ulceration.*
- V. BONES. *Rachitis and Caries.*

Cerebro-Spinal Nervous System.—From lack of nutrition, this Acid produces complete prostration of all the nerves of animal life, especially those of the sexual organs of man. It has no relation to the inflammatory states; but simple debility and relaxation, even to impotence, with feeble emissions, and dragging pains in the testicles.

Digestive Organs.—Phosphoric acid produces a general atonic condition of the gastro-intestinal canal; the gastric glands secrete an excess of acid, manifested by acid eructations, pyrosis,

heartburn, and excessive flatulence. This excess of acid in the bowels produces colliquative diarrhœa. On the liver, it produces portal congestion, and upon the kidneys we have renal congestion, profuse urination, and all the symptoms of *diabetes mellitus*. Saccharine urine is a marked symptom of Phosphoric acid; and it has made many cures of glycosuria.

Blood.—The blood becomes dark colored, unoxygenated, with passive hemorrhages.

Skin.—Condylomata; ulcers like carbuncles; dry herpes, and copper-colored skin.

Bones.—Phosphoric acid produces rachitis; caries, but not necrosis; periosteal inflammation, with tearing pains.

Therapeutic Individuality.

The great sphere for Phosphoric acid is in debility of the nerves of animal life, from seminal loss, profuse perspiration, leucorrhœa, or excessive grief.

"Suited to individuals of originally strong constitutions, but who have become weakened by losses of animal fluids, by excesses, violent acute diseases, chagrin, or a long succession of moral emotions."—*Teste*.

"The chief sphere of this Acid is the *nervous system*, when in a state of debility without erethism. When we find the brain or cord, sight or hearing, thus affected, as from continued grief, over-exertion, sexual excesses, or drain on the system, or remaining after typhus or typhoids, this Acid is an invaluable remedy, well deserving the name of tonic. It is to nervous debility what Iron is to anæmia; and its main and chief curative sphere is in the *renal and male sexual organs*."—*Hughes*.

"Weakness in the spine and spinal nerves, giving rise to great fatigue on exertion, and frequent inclination to urinate, especially in the morning."—*Dr. Bayes*.

Very weak, listless, indifferent, apathetic; atonic debility, complete indifference to everything.

Cold, clammy sweats, or profuse night sweats.

Chronic congestion to the head, with pain in the nape of the neck and occiput, from excessive grief.

"Is very weak, and indifferent to the affairs of life."—*G*.

This listless, apathetic, and remarkable indifference to everything in life, especially if there is emaciation and debility, is a

marked key for the use of this Acid. Chronic effects of grief, chagrin, care, and disappointed love.

Cerebral weakness from brain fag; hypochondria, from sexual abuse.

"Dreadful pain on the top of the head, as though the brain were crushed, after long-continued grief."—*G.*

"Hysterical affections of young women, with irritable fiber, accompanied with extreme delicacy and sponginess of the organic tissue; vascular orgasm, or atonic debility."—*G.*

Mouth.—"Gluey matter on the tongue, in choleraic diseases."—*G.*

Tongue pale and flabby. Bread tastes bitter; red streak in middle of tongue; bites sides of the tongue involuntarily.

"Mercurial syphilitic ulceration of the lips, gums, and soft palate, with swelling of the bones; condylomata."—*Hempel.*

Stomach.—Nausea as if in the soft palate; unquenchable thirst. Sensation as if the stomach were being balanced up and down; acid eructations; loss of appetite; longs for juicy food.

"Clammy, sticky tongue; abdomen much bloated; great rumbling in the bowels, and painless, watery diarrhœa; cholera epidemics."—*Raue.*

Meteoristic distention of the abdomen.

Stools.—"Often specific in the diarrhœa which precedes cholera."—*F.*

"Copious, watery diarrhœa, with rumbling in bowels."—*Raue.*

"Stools yellowish, and very offensive; the child is very listless; wants nothing and cares for nothing."—*G.*

"The diarrhœa, although of long continuance, does not seem to debilitate much; the mother wonders that the child remains so strong with it all."—*G.*

Diarrhœa; stools undigested and painless.

For white, watery diarrhœa, without pain, this is one of the most useful remedies we have.

Urinary Organs.—"Urine like milk, mixed with jelly-like blood pieces, with pain in the kidneys."—*Hempel.*

"She must rise often at night in order to void large quantities of colorless urine."—*G.* [Diabetes.]

"Phosphatic deposits, when these depend upon excess of Phosphoric acid, from waste of nervous tissue, or upon alkalinity of the urine, from nervous dyspepsia."—*Hughes.*

In diabetes of nervous origin, not only in the insipid form, but in chronic diseases, this Acid has made many cures; and it is in this disease Phosphoric acid has won its greatest laurels.

Albuminuria is well covered by Phosphoric acid; and it has done good work in this disease.

Sexual Organs, Male.—Bad effects from onanism and sexual excesses; great despondency; great debility; loss of memory; and copious, clammy night sweats.

"Impotency, especially when the sensibility of the part is excessive, and the semen is discharged shortly after an erection, or before an erection."—*Lippe*.

In spermatorrhœa this is probably the most useful remedy in the *Materia Medica*. "It is probably through the nervous centers that it effects the male sexual organs, on which its influence is very powerful."—*Hughes*.

Sexual Organs, Female.—"Too early and too long menstruation, with pain in the liver; has to rise frequently at night to void large quantities of urine."—*G*.

"Pain universally in the liver, during menstruation."—*G*.

"Profuse leucorrhœa, especially after the menses, with much itching."—*G*.

"Uterine ulcer; has a copious, putrid, bloody discharge, with much itching."—*G*.

"Meteoristic distention of the uterus."—*G*. [Very irritable uterus.]

"Metritis; great debility; indifferent, and slow fever."—*G*.

"Scanty milk; debility and great apathy."—*G*.

Generalities.—In diseases of the bones, caries and rachitis, it has often cured. In purpura and passive hemorrhages, it has made brilliant cures. In low nervous fevers (milder forms), this Acid has been of service. Intermittents, with great apathy and night sweats.

Aggravation.—From loss of animal fluids; mental work; at rest; at night; warm food, and cold, dry weather.

Amelioration.—Motion, warmth, and wet weather.

ACIDUM SALICYLICUM.**Salicylic Acid.**

Chemical preparation. Trituration.

Through the cerebro-spinal nervous system, Salicylic acid has six special centers of action :

- I. CEREbro-SPINAL SYSTEM. *Motor Paralysis; Anæsthesia.*
- II. MUcoUS MEMBS. *Catarrhal and Pustular Inflammation.*
- III. UR. ORGANS. *Albuminuria, Hæmaturia, Diabetes, Diuresis.*
- IV. CIRc'N. *Vaso-Motor Spasm; Heart Weakened; Temp. Reduced.*
- V. EYES. *Mydriasis, Amaurosis, Rheumatic Plastic Iritis.*
- VI. EARS. *Complete Deafness from Auditory Nerve Paralysis.*

Brain and Spinal Cord.—The cerebro-spinal system is the grand center for the action of *Salicylic acid*, especially affecting the cerebellum, auditory nerve, and pneumogastric. In full doses, fifteen to fifty grains, Dr. Ringer says, the aspect of the patient is characteristic, being in many respects similar to that of a person suffering from Cinchonism. The expression is dull and heavy; the face quickly flushes on slight excitement; and the eyes become suffused. The flush, of a dusky hue, suffuses itself uniformly over the whole face. The patient is made more or less deaf, and often complains of noise in the ears; there is frontal headache; the hands when held out, tremble a little; and the breathing is quickened and deepened. In some cases, one symptom may predominate. Thus, deafness may be almost complete, without headache or muscular trembling; but it rarely, if ever, happens that any one symptom is unaccompanied with the dull, heavy aspect and the readiness to flush.

Under toxic, but not dangerous doses, the headache is often very severe, so that the patient buries his head in the pillow. There may be very marked muscular weakness and tremor, associated with great muscular irritability, so that a slight tap, say on the shoulder, causes muscular contractions so strong as to jerk the arm backward. There are often slight spasmodic twitchings when a limb is raised. There is tingling of the extremities, or other

parts of the body. The voice may become thick and husky; the respiration hurried, sometimes deepened, sometimes sighing, shallow and almost panting, as though performed laboriously; but the patient does not complain of any difficulty in breathing. The costal, as well as the diaphragmatic, muscles are involved. In poisoning, Dr. Wood says: "There are ptosis, deafness, strabismus, mydriasis, and disturbance of respiration, excessive restlessness, passing into delirium, a slow, laboring pulse, olive-green urine, and involuntary stools." In some cases, the temperature has remained about normal, but in others has approached that of collapse. The quickened, deepened, sighing respiration is characteristic. Sweating is very free, and the urine easily becomes albuminous.

This Acid is a powerful antaphrodisiac. Serious depression of sexual power has been caused in several cases where it has been given for rheumatism.

Eyes.—It has produced complete amaurosis. The pupils were widely dilated, and the sclerotica and cornea on each side highly sensitive. This lasted ten hours, but left no permanent impairment of sight.

Auditory Nerve.—The action upon this nerve is specific and most profound, as shown by the numerous sounds in the ears and complete deafness. In toxic doses, complete deafness has been produced that lasted seven days at a time. Dr. D. Brown has cured several cases of auditory nerve vertigo with the 3d decimal.

Spine.—Its action upon the spinal nerves, especially the motor, is very marked; it also acts upon the nerves of sensation, as shown by the tingling, like pins and needles, in various parts of the body, especially in the legs and ankles, with cutaneous anæsthesia; but its action on the anterior part of the cord, and, through this, on the muscular system, is profound, as shown by muscular weakness, with twitching and trembling of the arms and legs. The great muscular irritability soon passes into complete paralysis for a short time; and in animals violent convulsions have often been produced.

Pneumogastric Nerve.—This Acid acts prominently upon the vagi, and through them upon the lungs and stomach, as shown by the deepened, sighing, panting, laborious breathing. In animals, the dyspnœa is most violent, followed by general convulsions.

Stomach.—Upon the stomach, its action is not so powerful; but large doses produce much irritation of the gastro-intestinal mucous membrane, with nausea and vomiting.

In a dog, it produced catarrh with sanguineous effusion, and ulceration of the stomach; and twelve grammes produced ulceration of the stomach in two patients.

Stool.—It produces very rarely diarrhoea; but, in toxic doses, it does produce involuntary stools.

Heart.—In its action upon the circulation, Danewsky found, that the arterial pressure was at first increased, partly on account of an increase in the force and energy of the cardiac beat, but chiefly as the result of excitation of the vaso-motor center. Vaso-motor spasm was shown to be the main factor in the rise of the blood-pressure, by the inability of the drug to increase the arterial pressure after section of the cord. The action of the heart was seemingly direct. The arterial pressure slowly fell during the latter stages of poisoning, the heart-stroke becoming weaker and weaker, and finally being extinguished. Large doses quicken the pulse to 140 per minute, and it becomes excessively weak.

Temperature.—Especially pains have been taken by the old school, to find out what effect this Acid has upon the temperature; and the conclusion arrived at by all, is that Salicine and Salicylic acid depress the normal temperature but slightly, and in some the temperature rises fully one degree. But the influence exerted on the febrile temperature, reducing it to the normal standard, is most prompt and marked. Dr. Ringer says: "There is no better attested fact than the power of Salicylic acid and Salicylate of Soda to promptly and considerably reduce an elevated temperature."

Dr. Ringer has made some experiments with Mr. Morehead to ascertain the relative power of Quinia, Salicylic acid and Salicine on the febrile temperature, and found, that, dose for dose, Quinia is far more potent than Salicylic acid, and Salicylic acid than Salicine.

Dr. Riess has investigated the action of the Salicylates on the healthy temperature in twenty-three experiments on seven healthy persons, and obtained, in from four to six hours, a constant reduction of about 1° F. He finds that the same dose produces a greater fall in the febrile than the healthy temperature.

"The first effect of a single antipyretic dose in fever is usually a profuse sweat, which may appear in fifteen minutes after the ingestion of the remedy. Very shortly after this, the temperature begins to fall; and, according to Justi, the depression reaches its maximum in about six hours. The sweating is profuse and exhausting, amounting, according to Ewald, not rarely to seven hundred and fifty grammes. The perspiration can scarcely be the only factor in the reduction of temperature, as there appears to be no relation between its amount and the degree of the fall, and it usually ceases before the latter reaches its maximum. The fall of the temperature lessens the pulse-rate and cardiac beat."—*Wood*.

Kidneys.—Salicylic acid escapes from the body chiefly through the kidneys. "It appears in the urine very soon after its ingestion, but its elimination proceeds slowly. Thus, in a case of exstrophy of the bladder, it was detected in the urine dripping from the ureters eight and a half minutes after its ingestion; and it has been found in the urine eight days after the exhibition of the last dose. The green color of the urine, characteristic of the free use of Salicylic acid, appears to be due to an increase in the formation of indican (S. Woolfberg), or else to pyrocatechine. The urine itself is often augmented in quantity, but frequently diminished. It not rarely contains albumen, evidently the product of a local irritation (congestion) of the kidneys. A case has been reported where the irritation was so great as to cause hæmaturia."—*Wood*.

Dr. Weber has seen the Acid cause acute nephritis with bloody albuminous urine containing casts, this effect following three moderate doses and lasting sixty hours after the last dose. Other observers refer to similar effects with this Acid, in some cases the urine being almost suppressed. It also produces involuntary evacuation of the urine from paralysis of the sphincter vesicæ.

It is ordinarily diuretic, the quantity of urine reaching 2,400 to 2,500 grammes. But this is not constant. According to Gubler, the Acid would diminish the excretion where there is an inflammatory condition of the kidney, but would augment it when the kidney is healthy.

Therapeutic Individuality.

Rheumatism.—Salicylic acid, and especially Salicylate of Soda, has the unanimous verdict of the Allopathic profession, as being an absolute specific for rheumatic fever, as far as a rem-

edy can be a specific for any one disease. It will prove as successful for rheumatic fever as Quinine does for intermittent fever; that is, it will not cure all cases, but will a large majority. Dr. MacLagan, of Dundee, has the honor of first using this Acid and Salicine in rheumatism, and giving it to the profession. His name will be numbered among the angels, for the great blessings conferred upon mankind by his work.

Dr. C. W. Brown, late house physician at the Boston City Hospital, has given us a most valuable and extensive investigation into the action of Salicylic acid on rheumatic fever. He records 160 cases, taken indifferently, the patients being of both sexes, and of all ages between eleven and sixty-one.

"The drug gave considerable relief from pain, on an average in 1.46 days, and complete relief in 2.8 days. The average time of treatment was six days, and the average number of days in the hospital was eighteen. Two cases died; one from pericarditis, and one from cerebral complications. Eighteen cases had a relapse, three had two, and one had five, while in the hospital. There were very few cases in which there were not occasional pains for a time after the omission of the Acid. Nausea and vomiting occurred in 18.8 per cent, burning in the stomach in one case, headache in six, singing in the ears in nineteen, and deafness in ten; numbness and prickling of the affected parts in three; delirium in three.

"The patients, as a rule, took ten grains of the Acid hourly for twelve or thirty-six hours, when the symptoms were wholly or partly relieved; and then it was omitted or given every two or three hours."—*Ringer*.

Dr. Gillespie, of Sterling, Ill., has collated and given us a valuable resume of rheumatism treated with this Acid and the Soda, in the *Chicago Medical Journal and Examiner*, August, 1878: Number of patients, 200; average time sick, in days, 13.5; average time pain relieved, in days, 2.8; average time taken to reduce temperature, in hours, 30.

Dr. Jacob gives, as a result of its use in 150 cases of acute rheumatism, the recovery of 103 within three days. And Dr. Broadbent says: "I have yet to see a case of genuine rheumatism without complication, in which the pain is not entirely gone and the temperature normal after six consecutive doses of twenty grains, at intervals of two hours, on two successive days."

In one hundred and eighty-one cases of rheumatism collected by military authorities, and treated with Salicylic acid, the remedy failed in but seven cases. As to the dose, Dr. Ringer gives ten

grains hourly until the temperature is reduced. Some patients require more; and, if in twenty-four hours this dose has not modified the disease, or produced its characteristic symptoms, increase it to fifteen or twenty grains hourly.

M. See, of Paris, believes one drachm and a half to two and a half should be taken daily of the Salicylate of Soda, which would equal one to one and a half drachms of the Acid.

Dr. MacLagan insists on saturating the system with twenty or thirty grains every two hours for twenty-four to forty-eight hours.

My friend Dr. J. B. Talcott, of Chicago, has given the Salicylate of Soda, ten grains every four hours, in seventeen cases of acute rheumatism, with complete success, and believes this Acid is a true specific for rheumatism.

Dr. A. E. Small has used from the first to the third decimal trituration of this Acid in rheumatism with satisfactory results.

Dr. E. M. Hale has used the first three triturations in rheumatism, in some cases successfully, but has centered on five-grain doses once in two hours, as the true dose in this disease, and believes, to get satisfactory results in rheumatism, the dose has to be large, just short of the toxic action of the remedy.

Dr. L. C. Grosvenor has had fine results both from the dilutions and crude drug, and says that Dr. W. Danforth thinks highly of it in rheumatism.

Mrs. Dr. J. N. Wilkins has had fine results with this drug in both acute and chronic rheumatism.

As to myself, I have only used it in from two to ten grain doses once in three hours, with complete satisfaction, but would strongly urge the profession to give the dilutions a thorough test; and, if they fail, Dr. Hale's or Ringer's method would be the one I would suggest to follow.

When it irritates the stomach, which, in large doses, it is very apt to do, it should be given in glycerine or tincture of orange-peel, cardamom, or ginger, or two drops of chloroform may be added to each dose. I usually give it in tea. The only objection that can be raised against the use of this remedy in rheumatism, is the large dose; but, if it fails in small doses in this disease, why object to the dose that cures? The curative dose is just short of the toxic, and that, Dr. Hale says, is five grains once in two hours. Let one of us become afflicted with this painful malady, and our Aconite, Bryonia, and Rhus tox. leave us in the *agonies* of the *lost*, the big doses will fade into insignificance, when we know with *positive* certainty, that, by the use of this remedy, we will be relieved of all pain in *two days*, and lifted as it were from hell to

Heaven. The general testimony tends to show that it is most useful in acute rheumatism; but it has given Dr. Jaccond good satisfaction in chronic cases. He also states that, in acute gout, it acts with extraordinary effect.

Dr. H. Weber has had most happy results from this Acid in gonorrhœal rheumatism. I have used it in one case of diphtheritic rheumatism, with salutary results.

A. Diersterweig reports one hundred cases of acute rheumatism treated with this remedy. Of these, the disease was cut short in thirty-six in twenty-four hours, in eighty-five in forty-eight hours, in ninety-eight in seventy-two hours, in one in eighty-four hours, and one, a girl, aged 20, was uninfluenced. The amount of medicine taken was, in forty-six cases, 5 to 15 grammes (77 to 231 grains); in forty-one cases, 20 to 28 grammes (308 to 432 grains); and, in twelve cases, 30 to 40 grammes (463 to 616 grains). In three of the cases cut short (all females), suppurative arthritis followed in the ankle, which was cured by incision and drainage. Relapses occurred during the use of the medicine in eleven cases, four in the first week and four in the second. Cardiac complications occurred only five times (and of these three had had heart disease before) in one hundred cases and twenty relapses. Pleuritis occurred three times. In one of these cases, the patient had pericarditis on admission to the hospital. Beyond this, the course of the complications under treatment by Salicylic acid was favorable.

"It acts well in simple chronic rheumatism; even in arthritis nodosa, the painful paroxysm passes off quickly, the articular swellings decrease, and motility becomes more free, though the disease may have lasted for years; but the affection of the bone must not have progressed too far.

"It is *the* remedy for acute and chronic arthritis. It arrests promptly the painful acute attacks and articular fluxion; the redness of the skin and the sensitiveness to touch disappears. Continued treatment with moderate doses prevents new attacks in chronic arthritis, the tophi decrease and cease to be inflamed; and even a case may be possible without the least danger of metastasis to the heart, lungs, brain or stomach. The usual arthritic sediments in the urine also disappear."—*Prof. See.*

Digestive Organs.—In dyspepsia, this remedy has but few equals. Where there is excessive accumulation of flatulence, and acidity of the stomach, with much belching of gas from the stomach, anæmia, and great irritability with despondency, I have used

the 1st decimal with great satisfaction. In fact, we have no remedy equal to this in bad cases of this disease; and its homœopathicity is most beautifully shown by the congestion, inflammation, and ulceration of the mucous membrane of the stomach. Dr. A. E. Small has found the remedy in the first trituration of great benefit in dyspepsia of a stubborn character. Dr. L. C. Grosvenor has had marked curative results with this Acid in dyspepsia, with putrid eructations and much accumulation of gas in the stomach. Dr. E. M. Hale has had fine results with this remedy in flatulent dyspepsia. From the specific and powerful action the Salicylates have upon the pneumogastric nerve, they must become the leading remedies for flatulent dyspepsia.

In the preservation of urine, Meyer and Kalb found that one part of the Acid to two thousand of urine, was sufficient to prevent putrefaction, and that 0.4 per cent would prevent milk from souring. Would not a little of this Acid be of service in cases of cholera infantum, where the milk produces acid diarrhœa, and the whole child smells sour, showing that the intercellular fluid is excessively acid? I have given it in one case, with high fever; pulse 140; stools every half-hour, excessively green and sour. In twelve hours it controlled the fever and green stools, but did not check entirely the diarrhœa. I believe that "acid children, with green stools" will prove to be a key-note for the use of this remedy. I have noticed that these children are very irritable, and prone to derangement of the stomach, from irritation of the pneumogastric at its origin. Knowing the specific and powerful action this Acid has upon this nerve and the base of the brain, we are justified in believing that the Salicylates will do much for acid children, with fermentive dyspepsia, and acid diarrhœa.

Dr. E. M. Hale has utilized this Acid with complete success, to prevent milk from souring, where mothers, traveling in hot weather on the cars, fed their children on artificial food. Two grains of this Acid, dissolved in a quart of milk, kept the milk perfect, and caused no medicinal symptoms.

Dr. Hale has given this Acid with gratifying results in cholera infantum and diarrhœa of children, with putrid eructations, and putrid-smelling diarrhœa.

Tænia.—"As all treatment for removal of tænia often fails, Marynowski tried, in a case where tænia solium had existed for nine years, four doses of 0.5 Acid Salicylicum, a dose every hour, followed by half an ounce of Oleum ricini. Half an hour afterward, a tænia ten yards long, with the head entire, was discharged per anum, without pain."—*North American Journal*.

Fever.—This Acid has been used in typhoid fever, intermittent fever, scarlatina, and zymotic diseases; by some physicians with good results, but the majority pronounce against the remedy. Much has yet to be learned about it.

Diphtheria.—It has given fine results in this disease. Dr. Oehme, in *North American Journal*, gives the results in fifty-six cases of diphtheria treated with Salicylic acid, with the following symptoms: Violent fever; the entire fauces covered with a white exudate. In two cases, hoarseness and barking cough (affection of the larynx) were present. In some, a gargle was given, while in others it was not. The average dose was one-sixth of a grain, hourly, and the average duration of the disease from two to five days. A few severe cases lasted eight days. No sequelæ followed. Dr. Mary J. Safford Blake has given from the third to the fifteenth dilution, in diphtheria, with prompt results.

Urinary Organs.—Drs. Ebstein and Mueller report two cases of *diabetes mellitus* cured by Salicylate of Soda, after a protracted trial of various drugs, notably Carbolie acid. Ryba and Plumert have reached the following conclusion: 1. A daily amount of two drachms of Salicylate of Soda determines a decided diminution in amount of sugar excreted. 2. The best results are to be derived in recent cases, and where the hydrocarbonaceous elements of the diet are restricted. 3. The polyuria usually yields consentaneously with the glycosuria, and the bodily weight increases.

Albuminuria.—I would suggest this Acid to be given a fair trial, when the patient has a rheumatic diathesis. It certainly causes albuminuria very promptly, and must become one of the leading remedies for this disease.

Chronic Catarrh of the Bladder.—Where there is an enormous amount of mucus voided, this Acid ought to be of great value as an antiseptic, it is eliminated by the kidneys so rapidly, and its power of preventing putrefaction being three times greater than that of Carbolie acid; consequently it is well worth a trial. Since writing the above, I found a remarkable cure of catarrh of the bladder in five days, by Dr. E. M. Hale, with this Acid dissolved in glycerine and warm water, and used as an injection into the bladder, once in six hours. The urine was very offensive, largely composed of mucus, and the microscope revealed pus, blood, and an abundance of mucous epithelium.

Serous Membranes.—As Salicylic acid has a specific action upon serous membranes, and all serous membranes, when in-

flamed, tend to effusion into the serous cavities, I would suggest a trial of this remedy in hydropericardium, hydrocephalus, and renal dropsy. When we take into consideration that most examples of serous inflammation are believed to be of a rheumatic character, and that this remedy has a wonderful control over rheumatism, we hope for great results from the Salicylate in dropsical effusions.

Eyes.—Dr. F. Park Lewis gives us an account in the *Medical Advance*, of a case of plastic iritis following inflammatory rheumatism. The pupil would contract, notwithstanding the local use of a one-per-cent solution of Atrop. sulph. The nightly pain was most agonizing, relieved temporarily by hot applications. Material doses of Salicylate of Soda made a speedy cure.

Sexual Organs, Female.—In puerperal endometritis and septicæmia, this Acid rapidly reduces the temperature, and relieves the cerebral symptoms quicker than any known remedy. For foul breath and offensive expectoration, Dr. Da Costa gives it in five-grain doses, with prompt effect.

Climacteric.—The readiness to flush caused by this Acid, would suggest its use in the hot flushes at the critical age.

In one case, a large leuco-phlegmatic lady, aged forty-five, the leading and prominent symptom was constant dull, heavy pain in the cerebellum; great forgetfulness, excessive irritability, and frequent hot flushes of fever. Two-grain doses of the first dilution, once in three hours, arrested the whole trouble at once.

Antiseptic Uses.—The inhibitory action on putrefaction of this Acid being, it is said, three times greater than that of Carbolic acid, ought to give it a high place in antiseptic surgery. Bucholly found that 0.15 per cent of the Acid is sufficient to prevent the development of bacteria, and 0.4 per cent killed bacteria in vigorous growth. Salicylic acid sprinkled on indolent or inflamed ulcers is said to induce rapid healing.

Copious, foul-smelling foot-sweats. The powder is put into the stockings.

One part of the Acid to 200 of water, used for washing the walls of damp houses, effectually destroys the fungus and prevents its re-appearance.

Cotton saturated with a hot solution of from three to ten per cent of this Acid and then dried makes an excellent surgical dressing.

In spasmodic, flatulent asthma, and fetid bronchitis, and gangrene of the lungs, this Acid is of great value.

Dry cough, of a hard, racking, spasmodic character, aggravated at night, in old people.

For purulent, fetid otorrhœa, it is very valuable used locally; and it ought to be of great value in nervous deafness.

Purpura hæmorrhagica, with hemorrhages from all the mucous membranes, accompanied with a constant dull aching distress in the stomach and occasional vomiting of blood and mucus; relieved in one night.

ACIDUM SULPHURICUM.

Sulphuric Acid.

Chemical preparation. Aqueous solution.

Antidotes.—Alkalies in milk, or soapsuds, Puls., Merc., Hydrast.

Through the organic nervous system, Sulphuric acid has three special centers of action:

- I. MUCOUS MEMBRANES. *Destructive Inflammation.*
- II. SKIN. *Ecchymosis and Colliquative Sweats.*
- III. GLANDS. (SALIVARY.) *Insalivation.* (LYMPHATIC.) *Atony.*

Mucous Membranes, and Other Tissues.—Sulphuric acid acts especially upon the mucous tissues, particularly those of the alimentary canal and the respiratory organs.

As a corrosive irritant, the action of this Acid, when applied boiling to the living tissues, is to destroy them like red-hot iron, from its escharotic action; but, when sufficiently diluted, its action is tonic; astringent; strengthens the appetite; quenches the thirst, and acidifies, to a greater or less extent, the secretions and excretions.

By habitual use, this Acid becomes very injurious to the teeth; even when greatly diluted, it whitens and corrodes them.

Sooner or later it enfeebles digestion; produces colicky pains; diarrhœa; impairs nutrition, producing marasmus and death.

Skin.—Here this Acid produces ecchymosis, urticaria, formation, frequent hot flashes, and colliquative sweats.

Lymphatic Glandular System.—This Acid produces a general atonic condition of the lymphatics, and, by its action on the salivary glands, causes salivation.

Therapeutic Individuality.

"Great debility; debility, with sensation of tremor all over the body, without trembling."—*G.*

Profuse night sweats, with great debility.

"Pressing pains in different parts of the body, increasing slowly and suddenly disappearing."—*Hg.*

"When some deep-seated dyscrasia prevails, the child weak and exhausted, with no other symptoms."—*G.*

Digestive Organs.—"Aphthæ; the mouth appears very painful, and the child is very weak."—*G.*

"Coldness of the stomach, with relaxed feeling; loss of appetite, and great debility."—*Hg.*

Gastralgia; pains contractive and violent; or of a dull, heavy, aching character, with pyrosis and much flatulence.

Acidity of the stomach; watery diarrhœa, with sensation of tremor all over the body, without trembling, and great debility.

Stomach rejects cold water, unless it is mixed with wine.

Valuable in lead colic, as an antidote.

"Constipation; stools in small black lumps, mixed with blood, accompanied with violent prickings in the anus, so that she has to rise up on account of the pain, with a trembling sensation all over the body."—*G.*

Sexual Organs, Female.—"She always gets a distressing nightmare before menstruation."—*G.*

"Menses too early, too profuse; metrorrhagia; always preceded by a distressing nightmare; much debility, and a trembling sensation all over the body, without trembling."—*G.*

"Leucorrhœa of bloody mucus, with sensation as if menses would appear."—*G.*

Climacteric age, with constant hot flashes, and a feeling of tremor all over the body, with great debility, and as if everything must be done in a hurry.

Skin.—"Distressing itching, tingling, and formication of the skin, in lichen, prurigo, and urticaria."—*Pereira.*

Secondary syphilis, aphthæ, maculæ, etc.

Hemorrhages from all the outlets of the body.

Chronic headaches, leucophlegmatic people, with relaxed muscles, and general debility.

Aggravation.—In open, cold air, afternoons and evenings.

Amelioration.—Open, warm air, and from vomiting.

BAPTISIA.

Wild Indigo.

Habitat: America, etc. Fresh root, with its bark, Class III.

Through the cerebro-spinal nervous system, Baptisia has four special centers of action:

- I. BLOOD. *Septic; Typhoid Condition.*
- II. MUCOUS MEMBRANES. *Catarrhal Inflammation; Ulceration.*
- III. LYMPHATIC SYSTEM. *Secretions Putrid.*
- IV. CEREBRO-SPINAL SYSTEM. *Motor and Sensory Paralysis.*

Vascular System.—The blood rapidly tends to disorganization; the excretions become offensive; the pulse soft, full, and quickened; headache; delirium; a tendency to general paralysis, and profound debility; all indicate a typhoid condition, where this remedy has no rival.

Mucous Membranes.—Especially of the buccal cavity, and lower portion of the intestinal canal. It produces fetid breath, catarrhal inflammation and ulceration, with watery, putrid, sanious discharges, as found in diarrhœa, dysentery, and especially typhoid fever, with ulceration of Peyer's follicles.

Lymphatics.—The lymphatic glandular system is especially vitiated by Baptisia, as shown in all the secretions being so offensive; the whole body gives out a putrid odor.

Cerebro-Spinal System.—Baptisia produces profound prostration of the animal nervous system, probably through its toxæmic action upon the blood. The cerebro-spinal nervous system is affected similarly as in all septic fevers. In my proving of the remedy, I was greatly prostrated from its action.

Therapeutic Individuality.

This is the *king* of all remedies for enteric or typhoid fever. No remedy can supplant it in the first stages.

All adynamic septic diseases, with great depression of the cerebro-spinal nervous system, and a showing of putrescence, with tendency to softening and breaking-down of tissue, with low fever.

Septic diseases, with a sore, bruised feeling of all the muscles of the body, and profound debility.

Low, muttering delirium; the head seems scattered; he must toss about to get the pieces together; with besotted look.

"Typhoid diseases, with stupor, delirium, face dark red; besotted expression; eyes injected; tongue coated, brown, dry, particularly in the center; very offensive breath; sordes on the teeth; diarrhœa, with great fetor of the stools and urine."—*A. E. Small, M. D.*

Stupor and delirium at night, with wandering of the mind whenever the eyes are closed, in low toxæmic fevers.

Dull, stupefying headache, with confusion of ideas.

While answering a question, falls into a deep sleep in the middle of a sentence, in low septic fevers.

Excitement of the brain, especially at night, with febricula.

Teeth covered with sordes, mouth full of ulcers, aphthæ.

Soreness of the eyeballs; they feel as if they would be pressed into the head, with confusion of sight.

Digestive Organs.—Tongue dry, and red as if burned.

Tongue dry, dark red, shining, cracked, ulcerated, or dry, with a brown streak down the center; edges clean and red.

"Pasty tongue, heavily furred."—*Hale.*

"Putrid, offensive breath."—*Hale.*

"Putrid ulceration of the buccal mucous membrane, with salivation."—*Hale.*

Diphtheria, dark-red color of the fauces, which are greatly inflamed; dark wash-leather false membrane covering the tonsils and fauces; tonsils and parotid glands enlarged; breath excessively fetid; head, back, and limbs ache as if pounded, with restlessness and low, adynamic fever. No remedy equals Baptisia in the fever of diphtheria.

"If you have a patient who can swallow nothing but liquids, give him Baptisia."—*G.*

"Great sinking sensation in the epigastrium, with frequent fainting."—*Dr. Bayes.* [In portal congestion.]

Violent colicky pains in the hypogastrium, before and during stool. Stools fetid, watery, and exhausting.

Dysentery; stools scanty, of blood and mucus, with severe tenesmus and low fever. Very valuable in dysentery.

"Stools, urine, and sweat all extremely fetid."—*Dr. A. E. Small.*

Continual pain in region of gall-bladder; has to move constantly, but this does not remove the pain.

"In whatever position the patient lies, the parts rested upon feel sore and bruised."—*Dr. Bayes.*

Lungs.—"Dry cough, or loose, purulent, or muco-purulent; high temperature; chills at 10 a.m. and 3 p.m.; anorexia and emaciation. Grand remedy in phthisis."—*J. S. Mitchell, M.D.*

Generalities.—Limbs very weak and trembling. Toxæmic diseases.

Aggravation.—In close, warm room.

Amelioration.—In open, fresh air.

BARYTA CARBONICA.

Carbonate of Baryta.

Chemical preparation. Trituration.

Antidotes.—Bell., Calc., Caust., Merc., Iod., and Magnesia.

Through the organic nervous system, Baryta has one special center of action:

I. LYMPHATIC GLANDULAR SYSTEM. *Hypertrophy; Atony.*

Lymphatics and Tonsils.—Baryta produces atony of the lymphatic system, and hypertrophy of the parenchyma of the tonsils, with chronic ulceration of the glandular system.

Therapeutic Individuality.

Atrophy; defective mental and physical growth.

"Especially suited to dwarfish women with scanty menstruation, and troublesome weight about the pubes in any position."—*G.* [Mind and body very weak.]

"Scrofulous children that do not grow."—*G.*

Acts well on diseases of old people, especially paralysis.

Chronic induration of the tonsils, where the parenchyma is the seat of the trouble, and they often ulcerate.

"It is our best remedy in tonsillitis to prevent suppuration."—*Hughes.*

Sensation as if the lungs were full of smoke.

"Hoarseness and aphonia, with great relaxation of the muscular structures of the throat."—*Dr. Bayes.*

Very susceptible to cold. Takes cold on slight changes in temperature.

Fever, the chill predominating; chronic suppurations.

Scrofulous ulcerations, fatty tumors; indurated glands.

Aggravation.—Night, morning, cold, damp air.

Amelioration.—Walking, and open, warm air.

BELLADONNA.

Deadly Nightshade.

Habitat: Europe, Asia Minor, etc. Whole fresh plant, at inflorescence; Class I.

Antidotes.—Camph., Op., Coff., Hyos., Nux vom., Hep., Zinc, Wine.

Through the cerebro-spinal nervous system, Belladonna has eleven special centers of action:

- I. CERE BRO-SPINAL SYSTEM. *Motor and Sensory Paralysis.*
- II. CIRCUL'N. *Cardiac Inhib. Centers Stim.; Capillaries Cont'd.*
- III. TEMPERATURE. *Elevated from One to Three Degrees.*
- IV. PNEUMOGASTRIC NERVE. *Respiratory Center Stimulated.*
- V. MUSCLES OF HOLLOW VISCERA. (ABDOMEN, ETC.) *Paralysis.*
- VI. KIDNEYS. *Congested.* BLADDER. *Sphincter Paralyzed*
- VII. GENERATIVE ORGANS. *Congestion; Arrested Secretion.*
- VIII. GLANDULAR SYSTEM. *Arrested Secretion; Inflammation.*
- IX. SKIN. *Erysipelatous Inflammation; Copious Perspiration.*
- X. EYE. *Mydriasis; Congestion, Inflammation.*
- XI. MUCOUS MEMBRANES. *Secretions Entirely Arrested.*

Cerebro-Spinal Nervous System.—Belladonna produces active, acute, and violent congestion and inflammation of the whole encephalic mass, with throbbing headache; mania; wild delirium; vertigo; profound sleep; fantastic vision; flushed face; and noises in the ears.

"A sense of tightness or pain is first felt in the frontal region and in the eyes; confusion of thought, with giddiness, a feeling of intoxication, and noises in the ears. The sight becomes confused, objects are seen as through a mist, or they are mistaken for different ones. Spectral illusions are not infrequent. They are usually of a pleasing character; images of diamonds and other precious stones; flashes of many-colored lights, bits of brilliant plumage, and insects with enameled wings. Occasionally there is total blindness, even of several days' duration. The mind is agitated and excited by a train of extravagant ideas; there is often decided delirium, and nearly always of a gay de-

scription, which either prevents sleep entirely, or permits only broken slumbers disturbed by fantastic dreams. It is remarkable that the patient may be quite conscious of his visual illusions and his delirium, but without having the power to prevent the one or control the other.

"In certain cases, familiar objects around the patient are not recognized, and are called by wrong names; the old and decrepit are addressed as young and beautiful; and even inanimate objects are mistaken for one another. This singular low delirium has been compared to somnambulism. It is recorded of a tailor, who had used an injection of Belladonna, that he remained on his shop-board for fifteen hours, sewing with great apparent earnestness, using all the gestures which his business required, and moving his lips as if in speaking, yet the whole of the time perfectly insensible. Dr. Simpson mentions a lady who, under the influence of an overdose of Belladonna, appeared as if in the act of dressing her hair for hours. Some of the most frightful cases of suicidal and destructive impulses are declared to have had their origin in the use of Belladonna, even where a predisposition to insanity did not exist. It is asserted, that, when *tic-douloureux* has been suddenly stopped by this remedy, this form of madness has been developed. But, in general, in poisonous doses, it gives rise to active, and for the most part joyous, delirium, with laughter, running, etc.; although there is in reality great loss of muscular power. A remarkable fact, observed in some cases of poisoning, is the degree of anæsthesia which this drug produces. Of this, a striking example is afforded by a man who swallowed by mistake an enormous dose of the watery extract of this plant. For several days the skin remained so insensible that it could be pinched or pricked without pain. In most fatal cases, *sopor* succeeds delirium, or may even occur without being preceded by excitement; there is muscular relaxation, and a red, tumid face, injection of the conjunctiva, and a frequent, or else a very infrequent, pulse. In some, convulsions are the immediate precursors of death. But, in poisoning by Belladonna, narcotism is the exception, not the rule."—*Stille*.

"Dr. S. Botkin found, that, when the vessels of a frog's legs were tied, and the animal poisoned by Atropia, while paralysis developed itself in the ordinary way in the uninjured leg, the injured leg preserved its motility. On testing with galvanic currents, the nerve of the leg whose artery had been tied, transmitted a very forcible impulse to its tributary muscles, under the stimulus of a galvanic current much weaker than could elicit

the faintest response from the nerve of the opposite side. He concluded, very logically, that Atropia acts as a paralyzant to the motor nerve trunks themselves, and also, since motion persisted in the protected leg after it was completely lost in its fellows, that this influence of the drug was exerted upon the motor trunks before the spinal centers. This has been confirmed by many men, such as Bezold, Bloebaum, Meuriot, and others, who have proven that Atropia, if in sufficient dose, has the power of destroying the excitability of the efferent or motor nerve fibers, but that it must be in very large quantity; so that, in mammals, death may be caused by the Alkaloid, and yet a notable amount of functional power be retained by the motor nerves. Bezold and Bloebaum, whose elaborate experiments are especially commendable, affirm that very rarely have they been able totally to destroy by Atropia the functional power of the motor nerves, and also have shown that both the nerve-stem and the peripheral intra-muscular nerve-endings are affected. All the experimenters of the day agree that no stage of super-excitability preceding that of depression can be discovered.

"The action of Atropia upon the spinal centers has been closely and ably studied by Dr. Fraser, of Edinburgh. He discovered, that, if a frog receive a hypodermic injection of about the one-thousandth part of its weight of Atropia, a condition of perfect paralysis and abolition of reflex action comes on after a time, and lasts from two to four days, to be succeeded by a tetanic stage, with violent convulsions, and excessive excitability of the reflex centers. The convulsions of this stage have been shown by Fraser to be spinal, occurring after section of the cord in all parts of the body; and the paralysis, as well as the tetanus, is due to an action upon the centers; the drug so acting upon the spinal cord as first to abolish and then intensify its reflex activity. Drs. Ringer and Murrell believe that both the paralysis and the tetanus are due to a depressant action. The theory is, that the normal cord has a power of resisting impulses received from the periphery, and especially of preventing their wide propagation among the spinal centers. During the first stage of the Atropia-poisoning, it is supposed that the motor portions of the cord are so paralyzed as to be unable to form or propagate any motor impulse; and hence the general paralysis. Later on, however, the motor cells have so far recovered themselves as to be able to generate impulses freely, although the resistive power of the cord is still in abeyance. Consequently, a peripheral impulse plays, as it were, at will, up and down the spinal cord, and, instead of

giving rise to a simple reflex action, gives origin to a series of reflex movements, involving all the muscles, and constituting a tetanic convulsion. In mammals, the convulsant action comes on more rapidly, and is less protracted, and the paralyzant action is also less intense, than in the frog; so that, while the batrachian poisoned by Atropia is in the beginning paralyzed, and afterward convulsed, the mammal suffers from convulsions and reflex spasms early in the poisoning, and often exhibits evidences all through of the excited reflex activity. Dr. Botkin, from frogs poisoned with Atropia, came to the conclusion, that, while Atropia paralyzes first the motor nerves, yet later it acts, also, on the afferent nerves.

"The following experiments of Meuriot prove conclusively that Atropia does influence the afferent nerves: He found, that, if a frog be bound tightly around the body, so as to interrupt the circulation, and then be poisoned by Atropia in the front part of the body, at first irritations in any part give rise to general spasms; but, after a time, in order to get any movements of the hind legs, it is necessary to apply an irritant to them. Again, the hinder parts of the frog were so bound by ligatures as to cut off, on the one side, all communication except by the nerves, and, on the other, to leave free the nerve and constrict the vessels. A strong injection of Atropia was then given; and, when the moment came that irritation of the periphery of the leg whose circulation was free would no longer cause reflex spasms, the artery of this leg also was tied, so that both legs, the one Atropinized, the other not, were now connected with the body of the frog only by their nerves. Strychnia was now injected; and it was found, that, while irritation of the Atropinized leg had no effect, stimulation of the non-Atropinized leg gave rise to general convulsions. These experiments show that Atropia acts upon the afferent nerves as well as upon the efferent. It is probable that Atropia acts upon the peripheral filaments of the nerves more quickly than upon the main trunks."—*H. C. Wood, M. D.*

Dr. Fraser says, that Atropia produces paralysis chiefly by affecting the motor centers and sensory nerves in the spinal cord; and Dr. Ringer has confirmed this.

Vulpian says: "Atropia has a direct paralyzing action on the cord, and does not affect it through its depressing action upon the circulation."

Heart and Circulatory System.—Large doses of Belladonna prominently affect the heart and blood-vessels. "The pulse at

first becomes slower, but afterward is generally more frequent, and, during the active stages, full and bounding; but, as the symptoms decline, it falls again below the natural standard in strength and frequency; while in fatal cases, on the other hand, it grows rapid, intermittent, and thready."—*Stille*.

Dr. H. C. Wood says: "Atropia acts as a direct stimulant upon the cardiac inhibitory centers, precisely as it does on the spinal cord; the reason that the action is not more manifest under ordinary circumstances being the incapacity of the paralyzed vagus to transmit the central impulse. This asserted stimulation of the inhibitory center, if it be correct, accounts very beautifully for the primary brief slowing of the pulse stated to occur in some cases of Atropia-poisoning."

"When, by the division of the spinal cord and vagi, the heart is isolated from the nerve centers, and the vaso-motor nerves are paralyzed, Bezold and Bloebaum have found that Atropia, in small and large doses, lessens at once the arterial pressure. Botkin states, that, when Atropia is applied to the heart of the frog, it at once diminishes, and finally arrests, its action, which can not be re-excited by galvanic or other stimuli; and Bezold and Bloebaum have found that the same thing occurs when an overdose of the Alkaloid is injected into the jugular vein of a mammal. From these facts, it follows, that, upon *the heart itself*, *Atropia acts as a direct depressant poison*.

"From what has already been said, it is evident that the increase of the pulse seen in Atropia-poisoning, is in a measure due to a paralysis of the cardiac inhibitory nerves; but that this is not the only cause, is shown by the fact noticed by Lemattre (*Archives Generales*, August, 1865), and confirmed by my own experiments, that, after section of the par vagum, Atropia still causes an increase in the rapidity of the heart's action. Further, Bezold and Bloebaum have found, that, when the thoracic sympathetic is galvanized, even after large doses of Atropia, the heart is very sensibly affected. From these facts, it is obvious that Atropia acts on the cardiac *accelerator nerve centers*, or *possibly nerves*, as a *stimulant*, and, unless it be in lethal doses, does not destroy the *excitability* of these nerves.

"The evidence derived from direct observation of the capillaries seems to me to be, on the whole, decidedly in favor of their contraction by minute doses of Belladonna. However, the alterations in the caliber of the vessels are so slight as to leave great play for the imagination of the observer; but Brown-Sequard says positively that the drug has the power of exciting the mus-

cular fibers of the arterioles. Much more decisive proof is, however, obtainable from a study of the arterial pressure. I have found, that, after section of the vagi, Atropia still has the power of very materially raising the arterial pressure. As Atropia does not augment the force of the individual cardiac beat, and as the increase in the number of the cardiac pulsations caused by it after section of the vagi is comparatively slight, it is exceedingly probable that the rise of the arterial pressure just spoken of is due to a contraction of the small vessels. This logical conclusion becomes almost a certainty when it is further known, that, after division of the cord, and consequent separation of the vessels from the vaso-motor centers, Atropia is powerless to produce rise of arterial pressure,—a fact vouched for by Bezold and Bloebaum, and which I confirm from my own experiments.

"Viewing all these facts together, I am forced to give assent to the proposition that *Atropia, in not too large amount, is a stimulant to the vaso-motor centers, a conclusion in harmony with the action of the drug on all the other motor centers.* All observers agree, that, in the advanced stage of Atropia-poisoning, after the blood-pressure has commenced to fall, there is dilatation of the capillaries. It seems most probable that this is due to a direct action of the poison on the muscular fibers in the coats of the arteries; for, when directly applied to the web of a frog's foot, Atropia, after a time, produces an evidently paralytic dilatation; and Bezold and Bloebaum have found that the arterial muscular coats in Atropia-poisoning finally lose their irritability, but that, so long as they retain it, galvanic stimulation of a sympathetic nerve does not fail to induce contraction in the tributary vessels."—*Dr. H. C. Wood.*

Dr. J. Harley says: "The first effect of Belladonna on the pulse is to increase its quickness, fullness, and force, to the extent even of fifty to sixty beats in a minute; moderate doses at the same time increasing the blood-pressure. This condition of the circulation continues till the tongue and mouth become moist and clammy, when the pulse diminishes in frequency and loses strength. He considers Belladonna a powerful heart tonic; and he points out how the use of it serves to reduce the frequency of and to strengthen the beats of the heart, when weakened by disease."

From the above, we deduce the fact that the rapidity of the heart's action is due to paralysis of the peripheral inhibitory nerves, and to stimulation of the accelerator nerves; and that the increased arterial pressure is due to the increased cardiac action,

together with the general contraction of the capillaries, the result of excitation of the vaso-motor centers.

Temperature.—Dr. H. C. Wood says: "In moderate doses, Atropia causes a profound rise in temperature; but, in very large, decidedly toxic, amounts, it lessens animal heat. Thus, in the dog, Meuriot has obtained an augmentation of from 1° to 3° C., and Dumeril, Demarquay, and Lecomte, of 4° C. In fatal poisoning of dogs, these observers have noticed a fall respectively of 5 1-10° and of 3°. In man, Meuriot, in the use of medicinal doses, has observed the temperature to rise 1-2° to 1 1-10°, and Eulenburg 1-2° to 8-10°. Harley has seen in man an elevation of 1° F. As pointed out by Meuriot, the rise and fall of temperature probably correspond to the rise and fall of the blood-pressure."

Respiratory System.—Belladonna is a direct and special stimulant of the respiratory centers. Dr. J. M. Fothergill says: "The action of Atropia upon the respiratory centers is most marked, and is quite equal to that exercised by Strychnia and Ammonia. Its action is decidedly stimulating, and its potency in opium-poisoning is due to its effects upon the respiration and the circulation when failing."

Dr. H. C. Wood says: "Small doses of Atropia do not affect the respiration; whereas, large doses accelerate it. The same is true in animals; and the acceleration takes place even when the vagi have been previously divided,—a proof that it is due to a *direct stimulation* of the respiratory centers in the *medulla*. When large, fatal doses are administered, there is evidently also a paralysis of that portion of the peripheral pneumogastric nerve which is connected with the function of respiration; for if, in an animal suffering only from a moderate dose, the par vagum be cut, respiration is profoundly affected; but, when Atropia has been more freely given, no marked influence is exerted upon the respiratory rhythm by section of the vagi. As death approaches in Belladonna-poisoning, the blood, which has preserved its normal color, may become very dark, and the patient at last dies of asphyxia,—probably not from failure of the centers themselves, but from the loss of functional power in the respiratory nerves."

Abdominal Cavity.—Belladonna depresses and paralyzes the functions of the muscles of organic life, such as found in the hollow viscera of the abdominal canal, and lessens the secretions of these viscera. Dr. H. C. Wood, in his "Therapeutics," says: "On the non-striated muscles, the action of the drug is pronounced;

but its exact nature is uncertain." Meuriot states, that, if the belly of an animal poisoned by Atropia be opened, the intestines will be found undergoing violent contractions, and that Belladonna is a violent excitant of the non-striated muscles. On the other hand, Bezold and Bloebaum affirm that they have experimented upon the intestines, bladder, uterus, and ureters, and that in all cases there is a marked sedation from Atropia, and that, whether a small or large dose be used, there are produced muscular quietness and relaxation in all these organs,—evidences of sedation not preceded by any stage of excitement, and always accompanied by lessening of the electro-muscular sensibility. They state, further, that, by the use of sufficient doses, absolute paralysis of the organs alluded to is induced, so that the strongest Faradaic currents are unable to cause any motion. P. Keuchel has made a most elaborate series of experiments to determine the effect of Atropia upon the inhibitory fibers of the splanchnic nerve, and found, that, even when doses of Atropia so small as not to affect distinctly the motor nerves are given, galvanization of the splanchnics fails to influence the intestines, whose vermicular movements are still active, and therefore that Atropia paralyzes the peripheral inhibitory intestinal apparatus precisely as it does that of the heart. It has been shown by Pflüger, that galvanization of the peripheral ends of the divided splanchnics causes immediate arrest of the peristaltic intestinal movements; and, although the subject has not been absolutely worked out, it is almost certain that some of the splanchnic fibers are the inhibitory nerves of the intestinal coats. There is a seeming disagreement between these researches and those of Meuriot and Bezold and Bloebaum; but it is probable that both are correct. It appears certain, that, in full doses, Atropia paralyzes the smooth muscular fibers of the intestine, bladder, etc.; and it may be that in any dose it depresses their activity directly, but that, by paralyzing more quickly the inhibitory apparatus, it sometimes places the intestinal muscular coat in such a position that it will respond more vigorously than normal to external stimuli. If this be so, it is evident that there is real accord in the results of all these investigations; for Keuchel used only very small doses in a rabbit (0.75 gr.).

Spasm and paralysis of the sphincter ani, is a prominent symptom of Belladonna.

Urinary Organs.—Upon the *kidneys*, Belladonna produces congestion, and stasis in the Malpighian circulation. Dr. H. C.

Wood says: "From small doses of Atropia, the urine is increased, according to Harley doubled. I am confident, however, that this increase varies greatly, and is not always marked. After large toxic doses, the urine may be first increased, but is usually lessened very early, and in the later stages may be entirely suppressed. Meuriot states that the secretion of urine rises and falls in Atropia-poisoning with the arterial pressure. The experiments of Harley upon men, would appear to show that medicinal doses of Atropia decidedly increase the solids of the urine, slightly the urea and uric acid, very markedly the phosphates and sulphates."

Dr. Wood thinks, "when Belladonna is administered medicinally, it probably all escapes from the body through the urine."

Bladder.—Belladonna has a special action upon the *sphincter muscle* of the bladder, producing irritation similar to strangury, and finally *complete paralysis*. Its action upon the detrusor and sphincter fibers of the urethra, has often proved of untold value in breaking up the habit of nocturnal incontinence of urine in children.

Sexual Organs, Male.—Belladonna produces congestion and spasm; excitability, followed by depression.

Sexual Organs, Female.—In the female, the action of Belladonna is characterized by *spasm* and *congestion*, through its action upon the inferior hypogastric and spermatic plexuses, and the third and fourth sacral nerves, especially through their peripheral intra-muscular nerve-endings, found in the arterial capillary blood-vessels. This rise of arterial blood-pressure in the ovaries and uterus, gives us an elevated temperature, congestion, and all the symptoms of acute inflammation; as shown by the sudden clutching, stitching, throbbing spasmodic pains in the ovary and uterus, with pressure downward as if all the contents of the abdomen would issue through the vulva; heat and dryness of the vagina, with spasm of its sphincter muscle, etc.

The action of Belladonna upon the muscles of the uterus, especially the internal circular muscular coat, producing spasm, contraction, and in large doses complete paralysis, is most marked and profound. The power of producing muscular contraction of the uterus, has proved of untold value in arresting copious uterine hemorrhages after labor; and many a woman's life has been saved by its use. Its paralyzing influence in rigidity of the os uteri in labor, has also proved a blessing to thousands of suffering women, and saved hours of suffering.

Mammæ.—No remedy in the *Materia Medica* has a more specific and profound action upon the secretions of these glands. It not only checks, but entirely arrests, the secretion of milk, employed either internally or externally. Dr. Ringer says: "It is well known that Belladonna will arrest the secretion of milk, and that it is employed with great advantage when, from any cause, a mother is unable to suckle her child, and the breasts become swollen, exquisitely painful; and threaten to inflame and suppurate unless the tension of the milk-ducts is relieved. If the milk can not be drawn off artificially, the secretion must be suppressed by means of Belladonna, which should be applied early, before inflammation has set in; and then, in a few hours, the swollen, painful breasts gradually diminish, and soon become soft, comfortable, and painless. But, if inflammation has set in, and the breasts become tense, shiny, and knotty, red, and acutely painful, the continuous application of Belladonna for twenty-four or forty-eight hours will often remove the inflammation and tension and arrest the impending abscess. The rapid relief it gives in these cases will astonish any one unaccustomed to its use; in fact, it is impossible to overstate the usefulness of Belladonna."

The liniment (the extract mixed with an equal quantity of glycerine) or the ointment (a drachm of the tincture to an ounce of olive oil, or two drachms of the liniment mixed with an ounce of lard) should be rubbed especially over the areola around the nipple. The liniment is speedily effectual.

Glandular System.—One of the most prominent and early effects of Atropia is dryness of the mouth and fauces, due to suppression of the secretions of the mucous and salivary glands. Keuchel says, that the arrest of secretion is nervous, and is due to an action upon the peripheral nerve filaments.

As was first discovered by Schiff, "section of the chorda tympani is followed by arrest of secretion of the submaxillary gland, and galvanization of the peripheral end produces a greatly increased flow of saliva. In Keuchel's experiments, these phenomena occurred in the unpoisoned animal; but, when Atropia had been exhibited, galvanization of the peripheral chorda tympani was powerless to excite secretion,—proof that the peripheral end of the nerve was paralyzed. The entire suspension of the secretions of the salivary, and glands of the mouth,—the tongue, mouth, and fauces being as devoid of moisture as if they were composed of burnt shoe-leather, with inability to swallow,—is the first and most prominent effect of Belladonna;" and well has

it served us in acute inflammation of the mouth and fauces, as well as in great salivation from the abuse of Mercury. Tonsillitis in the acute form is not only produced by this drug, but is dissipated with it, like melting snow in a hot sun.

Skin.—The copious perspiration produced by Atropia, shows that it has a specific and most powerful action upon the peripheral nervo-glandular apparatus. Experiments indicate that the chief sweat center is located in the medulla oblongata; but it is believed that others are located in the lumbar and lower part of the dorsal region, and that the sweat fibers run with the vaso-motor fibers. I believe that Atropia affects most prominently the peripheral nervo-glandular apparatus of the skin, also the sweat center in the medulla oblongata. The nervous energy rouses the glands of the skin into activity, so as to produce increased secretion, and finally paralyzes the sweat glands, with arrest of secretion.

The great utility of Belladonna, and especially Atropia, in profuse sweating, either general or local, has been conclusively demonstrated.

The action of Belladonna, producing dry, red, and hot skin, which often goes on to acute erysipelas, and erysipelatous inflammation, where the skin is smooth, tense, and bright red, is a marked symptom of Atropia, and has been utilized thousands of times in scarlatina and erysipelas.

As a Prophylactic against Scarlatina.—The immortal Hahnemann has the honor of introducing Belladonna as a prophylactic against scarlatina; and, from the vast amount of testimony, in our school as well as in the Allopathic, we are compelled to accept it as a demonstrated fact; but just how much of a prophylactic it is, has not been proved. In mild epidemics, where the eruption is smooth, and diphtheritic symptoms do not show themselves, I believe it will often act as a prophylactic; but, in malignant epidemics, with intense blood-poisoning, in which the little ones pass away with croupal diphtheria, Belladonna is *utterly useless*. In our last malignant epidemic, children that took Belladonna as a prophylactic, took the disease and passed to their eternal homes in twenty-four and forty-eight hours; and, where they survived the eruptive stage, croupal diphtheria, or dropsy, took them off in from one to three weeks. Over three thousand of the cases, out of the twenty thousand attacked, proved fatal. In my great anxiety to find a remedy for this dreaded disease, I commenced to read everything I could find on the pathology and treatment of scarlatina. I found that all writers upon this subject claimed that

nursing infants were almost exempt from this poison, and I asked the question, *Why this exemption?* There being a cause for everything, there must be a cause for this non-predisposition of infants. This problem, I believe, is now solved, by the fact that *infants live upon a milk diet*. Therefore I believe that a—

Milk diet is the true prophylactic for scarlet fever.

I have already tested this *milk diet* in fifty-seven cases, where the children have been exposed day and night with a case of scarlet fever in the house. They have slept with the patients, kissed them, and aided in taking care of them; and, so far, I have not one failure to report. Taking this, with the great immunity of nursing infants, into consideration, I feel justified in claiming that milk will prove to be the *true prophylactic* in scarlatina.

At least one gobletful of milk should be taken three times a day; and a full milk diet would be better. Of course, the milk should be kept out of the sick-room, and well covered to prevent its acting as a contagion-carrier.

If the daily use of milk will prevent lead colic in the manufacture of white lead, where the workmen suffer the most violent colic without its use, why may it not prevent the poison that produces scarlatina from acting, when there is not the one-millionth part as much of the contagion absorbed as there is of lead in its manufacture? *There is always found an excess of fibrine in the blood of scarlatina patients. The lactic acid in milk, inhibits and lessens this excess of fibrine, thereby acting as a prophylactic.*

Eyes.—Atropia, given internally, or placed in the eye, dilates the pupils of all animals except birds. Accompanying this mydriasis, we have lessened intra-ocular pressure and paralysis of accommodation.

Dr. H. C. Wood says: "Before discussing briefly the action of Atropia upon the pupil, the fact that a recent American female writer has re-asserted the old theory that the movements of the iris are due to erectile tissue, or, in other words, to its blood-vessels, seems to render necessary a few words as to the real motile power of the part. In the first place, it is an indisputable anatomical fact that the iris is largely composed of muscular fibers; and it is a simple common-sense deduction that the muscular fibers are for the purpose of causing motion, especially since, in many animals, it can be readily demonstrated, that, while some of these fibers are circular, others are radiating, so that by position they become antagonistic. The paper of Dr. Alt seems to me very decisive. In a very elaborate series of experiments, it was found, that, when the upper cervical ganglion was stimulated, the pupil dilated long before any influence upon

the vessels was detected, and that, on cessation of the stimulation, the pupil became natural long before the spasms of the vessels yielded,—to my mind a proof that the ganglion has fibers other than vaso-motor fibers, which control the muscular actions of the iris, and are more sensitive than the vaso-motor filaments; and, secondarily, a proof that the movements of the iris are not due to movements of blood-vessels.

"It may first be asserted that the dilatation induced by the *local* application of Belladonna, is a nervous phenomenon, and not due to a direct action of the drug upon the muscular fibers of the iris; for, as all of these, both the radiating and the circular, are of the same nature (*non striated* in mammals), their antagonism is simply due to position; and it seems inconceivable that mere position should affect the relations between a muscle and a drug. Moreover, decisive proof is afforded by the experiments of Bernstein and Dogiel, who found, that, while galvanic irritation of the oculo-motor nerve was unable to cause contraction of the pupil in the Atropinized eye, yet, when the electrodes were applied to the eyes in such a way as to affect directly the iris, contraction occurred,—phenomena only explainable by the theory that the nerve-endings were paralyzed, while the muscle was unaffected. Of the truth of this observation, there can be no doubt, as it has been confirmed by Dr. G. Engelhardt.

"It is just possible, indeed, that the observation as to the non-action of the mydriatic upon the irides of birds is incorrect. Donders says that the pupillary action of Atropia 'is slight in birds, in which it was formerly overlooked.' In my own experiments on pigeons, there seemed to be no distinct effect.

"The dilatation of the pupil by the local application of Atropia is certainly independent of any nerve centers farther back than the ciliary ganglion. This is proven by the following facts: Claude Bernard and Lemattre both have found that Atropia-mydriasis occurs in animals after section of the oculo-motor; and I have seen it in cases of complete oculo-motor paralysis in man. It also takes place after section of the trigeminus, or of the cervical sympathetic, or of both of these nerves, as is shown by the testimony of numerous observers and by my own experiments. In man, I have seen it after paralysis of the sympathetic. (*Philadelphia Med. Times*, vol. i., p. 290.) Not only is the dilatation of the pupil by the local application of Atropia independent of the central nervous system, but also of the ciliary ganglion; and it is therefore due to an action exerted directly upon the *nerve-endings in the iris*. The experiments of Bernstein and Dogiel,

confirmed by Engelhardt, already quoted, are in themselves almost enough to establish the truth of this proposition. More direct evidence is not, however, wanting. Thus, Vierordt has found that Atropia, locally applied, still causes mydriasis after the removal of the ciliary ganglion. It also has been discovered, that, in the eye of a frog removed from the body, Atropia will produce dilatation of the pupil, and also in the eye of a man just dead.

"It having been demonstrated that the mydriasis of the Atropinized eye is the result of an action upon the peripheral nerve-fibers, the questions arise: Are the ends of the oculo-motor, the contractor of the pupil, paralyzed? or are the ends of the sympathetic, the dilator, stimulated? or is there a double influence both these actions occurring. Both Donders and Stellwag von Carion insist that the paralysis of accommodation is proof of paralysis of the oculo-motor nerve; and it seems to me they do so with truth. However this may be, there is much direct proof that the oculo-motor fibers are paralyzed, since the experiment of Grunhagen, showing that galvanization of the exposed oculo-motor nerve does not affect the Atropinized pupil, has been confirmed by many.

"In artificial mydriasis, there is, then, undoubtedly peripheral palsy of the oculo-motor. The question arises: Is there, also, stimulation of the dilating nerve? The evidence as to this is not so positive, but to my mind indicates very strongly that there is such an action. Clinical experience certainly shows that the dilatation produced by a mydriatic is not merely a passive movement of relaxation, but is active, capable of tearing up inflammatory adhesions even when of some firmness. Again, the dilatation that occurs after the paralysis of the oculo-motor nerve in man, and after its destruction in animals, is not at all equal to that produced by Atropia, and, indeed, can be largely increased by the action of the drug. Further, in the eye separated entirely from the nerve centers, Atropia still causes a wide dilatation. These facts necessitate the belief, either that the alkaloid acts upon the sympathetic fibrillæ, or that the peripheral fibers of a nerve are in themselves nerve centers, acting upon the muscles of themselves, even when separated from their centers.

"In conclusion, the action of Atropia applied to the eye may be summed up as follows: The mydriasis is the result of direct influence upon the peripheral nerve fibers; those of the oculo-motor being certainly paralyzed; those of the sympathetic and its ally, the trigeminus, being probably excited.

"In regard to the constitutional action of Atropia, it is evident, that, when the Alkaloid is administered internally, there are only four possible ways in which it can cause mydriasis: 1. By acting alone on the sympathetic nerve centers, as a stimulant. 2. By acting alone on the oculo-motor nerve centers as a paralyzant. 3. By combining these actions. 4. By being carried to the eye, and acting as though locally applied."

To get rapid and decided effects, as enumerated above, with Atropia, dissolve one grain of Atropia in a fluid drachm of water. One drop placed upon the conjunctiva will, in from five to fifteen minutes, dilate the pupil of the healthy eye to more than double its ordinary size, and retain it so for four or five days. Apply with a fine camel's-hair pencil at the canthus of the eye.

Belladonna is a direct tissue-irritant to the eye, producing hyperæmia of the ocular membranes, sometimes acute conjunctivitis, affecting the whole eye, retina, lachrymal sac and canals. With this congestion, we have presbyopia, chromatopsia, photopsia, and amaurosis.

Homatropin or Oxytolugl-tropein.—This is a new Alkaloid prepared from Atropia by the use of Amygdalic and dilute Hydrochloric acids. It is a *mydriatic* that in many cases will supersede *Atropia*; as its mydriatic action is much more rapid than that of *Atropia* or *Duboisia*, far less irritating than either, and its effects much more evanescent. Under the influence of Homatropin, the pupil begins to dilate in fifteen minutes, and attains its maximum size in from forty to sixty minutes, when used in solutions of from eight to fifteen grains to the ounce of water. When weaker solutions are used,—one and two grains to the ounce,—the maximum degree of dilation is not reached until three hours after the instillation into the eye.

After the instillation of Atropia, the patient is unable to read for ten days; after that of *Duboisia*, for three or four days; but, after that of Homatropin, he can read on the following day.

This will be a valuable agent for producing temporary mydriasis when necessary for the examination of the fundus of the eye; but, for a therapeutic agent in effecting a forcible dilation of the pupil, it will be of but slight utility, on account of its ephemeral action.

In glaucoma of the eye, its use would be dangerous, from its action increasing the intra-ocular tension.

Therapeutic Individuality.

The inception, or starting-point, of the affection is in the brain when Belladonna is indicated; and it is during the first stage of inflammation, before plastic effusion arrives.

Furious delirium, with a wild look; wishes to strike, bite, or quarrel, face flushed, and eyes red.

"Almost constant moaning; the child remains in a drowsy or sleepy state, with starting and jumping while sleeping; flushed face and red eyes."—*G.*

"Child cries out suddenly, and ceases just as suddenly."—*G.*

Desire to escape, with restlessness and anxiety.

"Rage; tears the clothes, bites, kicks, strikes, howls, and shrieks."—*Lippe.*

Crying, laughing, dancing, or muttering delirium, with phantasms; heat in head, and flushed face.

"Sleepiness, but can not sleep."—*G.*

Head.—Violent congestion of blood to the head, with loss of consciousness; carotids throb violently; jugulars swollen; face bloated and red. Worse from motion and touch; light and noise are intolerable.

When stooping, or rising from a stooping posture, has vertigo, with flickering before the eyes, and a tendency to fall backward or to the left side.

"Vertigo, with vanishing of sight, stupefaction and debility."—*Lippe.*

Epilepsy from irritation of the medulla oblongata, with active cerebral congestion; scarlet face, and foaming at the mouth. (It has cured many cases.)

Infantile convulsions, when of an active character and starting from the medulla oblongata, with heat in head.

Neuralgia of the head and face, with flushed face.

Dizziness, as if everything were going round or swimming, with confusion, stupidity, and heat in the head.

Pains gradually increase until intolerable; then suddenly decline, and re-appear elsewhere.

Marcy and Hunt say: "The specific action of Belladonna is on the cerebral system, which is the point from which all its symptoms radiate, as from a center, in all diseases. Even the inflammations induced by this remedy always emanate from within outward, by an increased action in the central organs. Thus, in the exanthemata, as soon as the eruption appears, the

severe cerebral symptoms, the headaches and general febrile symptoms [caused by the nervous system irritating the vascular] disappear. When an exanthematous eruption is suppressed, the brain is instantly the seat of a violent attack. Belladonna cures only those diseases of the splanchnic nervous system, or of the abdomen or uterus, in which there are more or less brain symptoms. In all visceral inflammations cured by Belladonna, we may safely conclude that these diseases were expulsions of inimical agents which originally threatened to attack the cerebral nervous system. The same remarks apply to all fevers, especially typhus, or the *febris nervosa versatilis*."

Speaking of inflammation, Prof. R. Ludlam says: "Belladonna is centric in its operation. It diminishes the caliber of the blood-vessels, after having just impressed the cerebro-spinal centers. The capillary contraction caused by its primary action, is followed by a relaxation in the fibrous coat of the vessels, which corresponds to Bennett's second stage of inflammation

"This change from contraction to dilatation is more or less marked in degree, and depends upon a diminution in the reflex power of the spinal cord, in the motor current at its source. The hyperæmia results from a direct derangement in the function of the vaso-motor nerves. Belladonna reduces the hyperæsthesia of the nervous system, upon which the congestion is consequent. It affords relief by a removal of the cause of the abnormal phenomena. It does not promote diaphoresis, is not critical in its results, has no special relation to the emunctories, but is appropriate to, and exercises a calmative influence over, deranged function or reflex action."

Eyes.—Eyes red, glistening and sparkling; wild and unsteady look; face red, hot, and swollen.

Congestion of blood to the eyes, with bright redness of the vessels; pupils contracted, and great photophobia.

Acute conjunctivitis, with pressing pains as if the eyes were full of sand, and tearing pains as if the eye would be torn from the socket; pupils dilated and insensible.

Secretion. First burning dryness, then involuntary lachrymation, with pressing pains and intense photophobia. Hyperæmia of the optic nerve and retina, with cerebral congestion; photopsiæ sparks, flames and bright spots.

Convulsive movements of the eyeballs in the light, with terrible pressing pains; mydriasis.

Hyperæsthesia of the retina, in ametropic conditions of the eye.

Neuralgia, particularly affecting the right eye, with a feeling as if the eyes would be pressed out of the skull.

Face.—Face very red and congested, or great redness of the face; heat in the head and throbbing in carotids.

Face swollen, bright red, erysipelatous.

Spasmodic distortion of the mouth.

"Thick, swollen upper lip; gums swollen."—*Hg.*

Nose becomes suddenly red at the point, with burning.

Ears.—Earache, intensely violent, with sharp shocks and pressing, tearing pains. (Apply a few drops of a solution of Atropia, one grain to the ounce.)

Illusions of hearing, buzzing, rushing, deafness, and stitching in the ears and throat when swallowing.

Mouth.—Tongue partially paralyzed, right side more affected; deep red, trembling tongue.

Excessive dryness of the fauces; dysphagia, constriction, and constant inclination to swallow, which is painful.

"Sore throat, fauces and pharynx deep red; soft palate and tonsils swollen; swallowing painful, particularly of fluids; speech thick; feels as if there was a lump in the throat, which induces hawking; throat swollen outside, and sensitive to touch."—*Hg.*

Tongue; the papillæ are of a deep red, inflamed and enlarged; trembling when protruded, sometimes dry and glistening.

Parotid glands hard, red, and swollen.

Mercurial salivation. No known remedy will check the salivary secretion with such promptness as Atropia.

Tonsillitis. Tonsils bright red and swollen, with great dryness of the fauces, and complete arrest of the secretions.

The fauces and tonsils are one of the cardinal centers for the action of Atropia.

Spasms of the throat, can not swallow.

Inflammation of the buccal cavity, mucous membranes dry, red, and swollen.

Tongue hot, dry, red, cracked; or red on the edges, with brown fur in the center; tenacious yellow mucus mornings.

Toothache, of a throbbing, tearing, drawing nature, worse at night, from cold air, and from mental exertion and contact.

A feeling in the throat and œsophagus of constriction, so that nothing can be swallowed, it is so dry.

"Inflammatory affections of the throat can hardly be mentioned in any connection without calling to mind Belladonna as a

remedy, so universal is its use and so efficacious is it. In simple tonsillitis, when the tonsils are swollen and present a bright red appearance, with painful and difficult deglutition; at first dryness of the fauces, and then moderate secretion of ropy mucus or saliva, with the characteristic pulse and face, Belladonna suffices to effect a cure in a few hours. It is equally useful in pharyngitis, in inflammation of the soft palate and uvula, and of the larynx when the mucous membrane and the sub-mucous cellular tissue are both involved. The redness is vivid; the pain is acute, tense, and often throbbing; the arterial action very decided."—*D.*

Stomach.—Constant inclination to swallow, a feeling as if he would suffocate if he did not swallow.

Spasms of the stomach during a meal, the pain running to the spine; difficult and scanty vomiting.

Abdomen.—"Colic in hypogastric region, as if from clutching and griping with the nails."—*G.* [Pressing and fullness of the stomach.]

"Tenderness of the abdomen, is aggravated by the least jar, even, of the bed or chair upon which she lies or sits. Obligated when walking to step with care."—*Hg.*

Pressing, spasmodic, cramp-like pains in epigastrium.

Stool.—"The child turns very red in the face before and during each stool, which is watery and expelled with great force."—*Dr. Bayes.*

Involuntary discharge of the fæces. from paralysis of the sphincter ani, is a marked symptom. Frequent tenesmus, without stool; stools of thin, yellow water.

"Piles, with a feeling as if the back would break."—*G.*

"Piles so sensitive to the slightest touch that the patient has to lie down, with the nates separated."—*Raue.*

Proctalgia, with severe spasms of the sphincter ani. (Use Atropia, 2d decimal.)

In large doses, Stille says, "Belladonna is a remedy *par excellence* for constipation."

Urinary Organs.—Involuntary micturition, wets the bed at night, restless, starts in sleep. (Use Atropia.)

Spasms of the urethra and incontinence of urine. Atropia blunts the sensibility and allays the spasms of the neck of the bladder. A large dose of Atropia at night will act like magic.

Urination difficult, comes in drops.

Sexual Organs, Male.—Acute inflammation of the testicles, with much induration; sexual desire lost.

Gonorrhœa, with much inflammation and chordee.

Sexual instinct lost entirely; testes drawn up.

Sexual Organs, Female.—Pressure downward, as if all the contents of the abdomen would protrude through the vulva; especially in dysmenorrhœa.

"Great pressing in the genital organs, as if everything would protrude, worse early in the mornings."—*G*.

Os uteri rigid, hot, and dry, with cerebral excitement.

Spasmodic contraction of the uterus. Secretions arrested; dysmenorrhœa.

Acute metritis, with many brain symptoms, delirium, etc.

Stitching, sharp pains in the ovary, that come suddenly, and go suddenly; right ovary enlarged.

Profuse flooding, blood bright red, with a feeling as if the uterus would come through the vagina.

"Menses too early; blood bright red."—*G*.

Offensive metrorrhagia. (Of great value.)

Vagina hot and dry, especially in labor.

For mastitis, mammæ indurated and very painful, use it locally as well as internally. (See "Glands".)

"Breasts feel heavy; are very hard, and redness runs in radii."—*G*. [It arrests the secretion of milk at once.]

For acute diseases of the mammæ, it is the most useful remedy in the *Materia Medica*. Used locally and internally.

Respiratory System.—For common colds, with hard, dry, teasing, spasmodic cough, worse at night, no remedy in the *Materia Medica* can equal Atropia (2d dec.). The constant sensation of wanting to cough, where the spasmodic element predominates, is its great indication.

"A dry, hacking, spasmodic cough, as if something had fallen into the bronchi, or dust had lodged in the larynx; with tightness in the chest and upper air-tubes; greatly aggravated evenings and when lying down."—*D*.

"Takes cold from every draft of air, especially when uncovering the head; complaints from cutting the hair."—*Hg*.

Asthma. No bronchial secretions, the dyspnoea is paroxysmal. According to Dr. Harley, in asthma originating in peripheral or centric nervous irritation, the subcutaneous injection of Atropia is followed by long continued relief. The dose must be large if Belladonna is used.

Nervous, spasmodic, dry cough, at night; loose mornings.

Whooping-cough. In some epidemics, Atropia will cure the paroxysmal cough in one week.

"Especially in irritable and inflammatory conditions of the larynx and trachea; the cough is dry; or, if there be any sputa, it is only after long coughing, consisting of mucus, or mucus and blood; aggravated in the evening or early night, particularly just after lying down."—*D.*

Skin.—Eruptions, smooth, scarlet color, with very pale face; or face hot, red, and swollen.

"Erysipelas, with smooth, shining skin, and not much swollen."—*Rauc.* [Eruptions appear suddenly and vanish suddenly.]

Skin highly congested, dry, bright red and smooth surface, as found in boils, scarlatina, and erysipelas.

In disposition to perspire, especially copious night sweats, material doses of Belladonna, especially Atropia, are of great value. The Allopathic school use it to arrest the secretion of perspiration in all kinds of colliquative sweats, but give decided preference to its hypodermic and local use. Dr. Fothergill has had marked success in the sweating of phthisis. He gives from one-seventieth of a grain, but sometimes has to give as much as one-twentieth, of Atropia. He uses a liniment of eau de Cologne, in abundant, foul-smelling sweat of the feet or arm-pits.

Atropia promptly checks sweating produced by a hot Turkish bath. The 100th (our first centesimal) will in a few seconds completely dry the skin, and maintain it dry, notwithstanding the continuance of the bath.

Sudden hot flushes, followed by perspiration, at the climacteric. (Use Atropia.)

Inflammations that come suddenly and leave suddenly; and the same with neuralgia.

Inflammation of the encephalon in the first stage of engorgement and plastic deposit. As soon as serous effusion commences, the case is beyond the province of Belladonna; and such remedies as Bry., Arn., Hell., Sulph., and Zinc, should be studied.

"Where there is doubt whether Aconite or Belladonna should be given, I have always found that a disposition to perspire constitutes a valuable indication for Belladonna."—*Baehr.*

Exophthalmic goiter. Dr. R. T. Smith has made two most brilliant cures with Belladonna in five-drop doses. We should try it hypodermically in goiter.

To relieve neuralgia in any part of the body, Atropia locally, by injection under the skin over the pain, or given internally, is of great value.

Upper Limbs.—"Shooting pains in the left shoulder, with drawing pains in the inner side of arm; great weakness of the arm."—*Hah.*

"Paralytic, drawing, pressing pains in upper extremities, with tearing pains in the joints of the fingers; the pains come and go suddenly."—*Hah.*

Convulsive movements of the limbs; hands and feet heavy.

Lower Limbs.—"Pain in thighs and legs as if beaten; gnawing pains along the bones; tearing in the joints; pain gradually rises from the tarsal joints to the hips; necessitating while sitting constant motion and shifting of the feet."—*Hah.*

Tearing pains in middle of inside leg, uninfluenced by motion.

Over-excitability of all the senses; great restlessness, sudden starting.

Fever.—Fever commencing in the night; much chilliness, followed by much heat, high temperature, intense burning heat within and without; thirst after sweat; head much congested.

General dry heat without thirst; sleep exceedingly restless.

For copious night sweats, Atropia, 2d dec., is of great value.

Inflammation and induration of glands.

Aggravation.—Afternoons, evenings; especially at night.

Amelioration.—During rest, and in warm room.

BORAX.

Biborate of Soda.

Habitat: Europe, Asia, etc. Mineral. Trituration and Aqueous solution.

Antidotes.—Camphor, Coffea (Aggravated by Acids and Wine.)

Through the organic nervous system, Borax has four special centers of action:

- I. MUCOUS MEMBRANES. *Aphthous Inflammation.*
- II. SKIN. *Unhealthy; Slight Injuries Suppurate.*
- III. SEXUAL ORGANS, WOMEN. *Ecbolic; Stimulates Menstruation.*
- IV. LOCALLY. *Powerful Antiseptic and Disinfectant.*

Mucous Membranes.—Borax produces aphthous inflammation, especially of the buccal cavity and anus, which is probably caused by an undue generation of acid, the result of the fermentation of the food in the primæ viæ.

Skin.—Slight injuries suppurate, and the skin is unhealthy, from an acid state of the blood, producing pruriginous eruptions.

Sexual Organs, Female.—Many physicians believe Borax to be a real *ecbolic*. It certainly exerts a stimulating action upon the uterus; and Dr. Golding Bird has seen it produce abortion twice. Pereira says it promotes menstruation; alleviates the pain; facilitates parturition; allaying the pain, and favoring the expulsion of the placenta and lochia.

Locally.—Recent investigations have revealed that Borax is a powerful antiseptic and disinfectant. It is a direct poison to the lower forms of life; 0.75 per cent of Boracic acid is sufficient to prevent the development of bacteria; and some day it will have a wide range in antiseptic surgery. It is readily dissolved in water, which makes it still more useful.

Therapeutic Individuality.

In excessively acid people, especially children, Borax will produce, at once, an alkaline blood pabulum, and strike at the cause of all the suffering.

"Very important in many cases of difficult dentition, and catarrhal affections of little children."—*F.*

"Very nervous; can not sleep well; starts at the least noise."—*G.*

"Can not bear a downward motion, as in a swing, in a rocking-chair, or in running down stairs."—*G.*

"Child can not bear a downward motion, not even during sleep; the downward motion of even putting it into bed, or cradle, will surely awaken it" (*G.*) "or lifting up its feet to put on a diaper."—*F.*

Digestive Organs.—Aphthæ that appear suddenly; the whole buccal cavity covered with the white fungous growth, which seems to be limited to the mouth and fauces. The 1st dec. will act like a charm; or, better still, small pieces of the Borax may be held in the mouth and let slowly dissolve. Cures at once.

"Great heat and dryness of the mouth."—*G.*

"Aphthæ, the child frequently lets go of the nipple; showing signs of pain in the mouth from nursing."—*G.*

The child can not nurse, the aphthous inflammation is so painful. (Use dry powder in the mouth.)

Child has much colic and indigestion, and is extremely nervous, from excessive acidity.

"When there are four or five diarrhœic stools a day, of a light yellow color, or watery, the stools being largely mixed with mucus, the stomach being excessively sour, without any great emaciation, Borax is decidedly in its place."—*Baehr.*

"Frequent, soft, light yellow, slimy stools, with faintness and debility."—*G.*

Sexual Organs, Female.—In acid women, with aphthous abrasions of the os uteri and vagina, with acid leucorrhœa, producing intense prurigo.

"White, thick, pasty leucorrhœa."—*Hah.*

"White, albuminous leucorrhœa, with a sensation as of warm water flowing."—*G.*

"Menses too soon, too profuse, attended with nausea, colic, and pain extending from the stomach to the small of the back, with sharp pains in the groins."—*G.*

"Pain from the stomach to the small of the back, before the menses."—*G.*

"Membranous dysmenorrhœa in large doses, three to five grains of the crude drug."—*Dr. E. A. Lodge.* [Dr. Hale has con-

firmed this in one case; but I have tried it in a number of cases, and every time it was *nil*.]

"Easy conception during the use of Borax, observed in five women."—*Hah*. [Confirmed many times.]

"A woman, sterile for fourteen years, from acid leucorrhœa, received Borax and became pregnant. The leucorrhœa improved."—*Hah*.

Labor-pains are accompanied by violent and frequent eructations.

"Stitching through the right pectoral region, musty expectoration, connected with menstruation. (Borax will almost surely help.)"—*H. N. Martin, M. D*

"Acne, in plethoric young females. (Used locally.)"—*Hughes*.

For pruritus pundendi and eczema of the vulva, one teaspoonful of the Boracic acid dissolved in one pint of water, used hot, will be found of great value. The hot water with the Borax renders the lotion far more efficacious than if cold were used.

Generalities.—Hoarseness. Dr. Carson finds that a piece of Borax the size of a pea, dissolved in the mouth, acts magically in restoring the voice

Locally, Boracic acid is of great service in many skin diseases.

Borax has been much employed as a *cosmetic* to remove freckles and discolorations of the skin; half a drachm to half an ounce of water.

Child wakes at 3 a. m.; can not fall asleep again, feels so hot and feverish.

Aggravation.—Morning, and in warm weather.

Amelioration.—Evening, and in cold weather.

BRYONIA ALBA.

White Bryonia.

Habitat: Europe, etc. Fresh plant, gathered before in lorescence; Class I.

Antidotes.—Acon., Camph., Coff., Rhus, Cham., Seneg., Nux vom., Alum., Puls.

Through the cerebro-spinal nervous system, Bryonia has four special centers of action:

- I. SEROUS MEMBRANES. *Rheumatoid Inflammation; Effusions.*
- II. MUCOUS MEMBRANES. *Arrested Secretions.*
- III. MUSCULAR SYSTEM. *Rheumatoid Inflammation.*
- IV. CIRCULATION. *Accelerated. Temperature Elevated.*

Serous Membranes.—Bryonia produces inflammation of a torpid, rheumatic character, followed by serous effusion. It selects, especially, parenchymatous organs inclosed in serous membranes, especially affecting the pleuræ of the lungs and of the thorax; next in order the arachnoid; then the synovial membranes, liver, peritoneum, kidneys, and muscular fiber. The powerful and specific influence it has over serous membranes and muscular fiber, with its fever and sour sweats, all point to its rheumatic base. It is believed that most cases of inflammation affecting serous membranes are of a rheumatic character; and this shows us why Bryonia is so useful in diseases of serous membranes.

Of the two chief viscera enfolded by the peritoneum, the liver is much more affected than the kidneys, with tensive, burning pains over the liver, with jaundice.

"If you will read the autopsies of the animals poisoned at Vienna, this fact will abundantly appear. In the first, the pleuræ were injected and full of serum, and the peritoneum and arachnoid only were reddened; but, in the sixth, the pleuræ were as in the first, and the pericardial vessels were injected. Correspondingly, the provers have the characteristic pleuritic pains, with fever; and, although the symptoms of the head, heart, and abdomen, are undecisive, they at least do not forbid the supposition of an affection of their respective serous membranes. Moreover, those close allies of the serous sacs, the synovial membranes, which are more easily affected by drug action, give plain indica-

tion of suffering from Bryonia. The joints swell and become tender, especially those of the fingers. . . .

"It is curious, that, of all the serous membranes, the pleuræ are the most readily influenced by Bryonia; so, of all the viscera, the *lungs* are those which suffer most. The short, quick, and oppressed breathing, with heat and pain in the chest, experienced by the provers, finds its interpretation in the phenomena presented by the poisoned animals. In these, the lungs were always of deeper color, with diminished crepitation, while in two the lower lobes were hepatized. . . .

"Next to the lungs, the brain is the organ which shows most signs of being affected by Bryonia. There is no perversion of the sensorial functions, as with Belladonna, and the determination of blood does not pass beyond the stage of congestion. But up to this point it is very well marked; and the provers get a hot and red face, with headache (generally frontal), sense of weight and fullness, vertigo, and often epistaxis."—*Hughes*.

Noack and Trink's say: "Bryonia excites both the peripheral nerves and capillary vessels, thus giving rise to symptoms intermediate between inflammation and nervous irritation. It has striking relations with serous membranes, and is especially suitable in hyperæmia of the latter. Bryonia is especially indicated in affections where resorption is required; in typhoid infiltrations, serous effusions, and sanguineous exudations."

Mucous Membranes.—Bryonia especially affects the large intestines, producing an atonic, dry mucous surface, with constipation; or intense colitis, with muco-bloody stools, as found in dysentery. Peyer's glands are also affected similarly as in enteric fever, where Bryonia has gained so many laurels.

Hahnemann says: "Bryonia is one of the few remedies, of which the primary action is to diminish the intestinal excretion and peristaltic action; and there is no desire for stool."

Dr. R. Hughes says: "Bryonia is an acrid, and hence large doses can not but irritate the alimentary mucous membrane. Accordingly, we have in the provers sore throat, vomiting and diarrhœa, with colic and flatulence; in animals, an aphthous mouth, and ulcers in the stomach and intestines. But the essential phenomena of Bryonia in the gastro-intestinal sphere do not seem to depend upon irritation of the mucous membrane. They are water-brash (with this, there is the characteristic contractive pain at the lower end of the œsophagus), bitter risings and vomitings, pressure on the stomach, feeling of load as if a stone were there, and constipation."

"The respiratory mucous membrane is unquestionably affected by Bryonia; though I doubt whether the irritation extends lower than the first division of the bronchi. The symptoms (pain, cough), whenever located, are referred to the trachea and its bifurcation; and these parts only were found injected in the poisoned animals. The pneumonia set up by Bryonia was never associated with bronchitis; in this, it is strikingly different from that of Tartar emetic and Phosphorus. If Bryonia causes nasal catarrh, it is dry, and the cough has little expectoration, and is continuous, irritating, and violent, often causing retching, and pains in the walls of the chest."—*Hughes*.

The foolish repetition of M. Curie's statement, that Bryonia causes *pseudo-membranous* formation in the trachea, claiming it to be a dynamic effect of the drug, I am sorry to say, has carried the astute mind of Dr. R. Hughes to make a gross error. Never was a more nonsensical thing palmed off on the profession. In poisoning animals with such large doses of tinctures, great quantities of the drug pass down the trachea; and, through its mechanical irritation, it produces this pseudo-membrane. I produced most beautiful specimens of this effect with Baptisia and Robinia, in dogs, the whole length of the trachea, and found alcohol would do the same thing. At first, I was delighted, but soon learned that, practically, it amounted to nothing; and any man who pins his faith on curing membranous croup, or any pseudo-membrane, with Bryonia, will have the reward of making out a death certificate.

Muscular System.—"In one of the animals poisoned with Bryonia at Vienna, where a very minute autopsy was made by a practical pathologist, it is noticed that the substance of the heart and the muscles of the neck were intensely red. Putting this together with the soreness and the pain on motion experienced by the provers in so many parts of the body, even to the production of pleurodynia and lumbago, I venture to set down our drug as a specific irritant to muscular fiber. As we have no other medicine with such an action, we must not lose even the hint of it supplied by these facts."—*Hughes*.

Therapeutic Individuality.

Bryonia is the sovereign remedy for all inflammations that have advanced to the stage of serous effusion. This action extends over all the serous membranes.

Hempel says: "Bryonia is particularly adapted to inflammations of a torpid character, when developing themselves from a rheumatic base; or, in acute inflammations which threaten to pass into the stage of exudation or paralysis, with a small, soft, or even compressible and somewhat accelerated pulse."

Dr. C. Dunham says: "Bryonia's action, as appears from the proving, is exerted chiefly upon the nervous system of animal life, presiding over ratiocination and voluntary motion; upon the gastro-intestinal regions producing various perversions of digestion, a deficient intestinal secretion, and a form of constipation, and, moreover, the symptoms of a well-marked hepatitis. Upon the respiratory mucous membrane, the action of Bryonia, though evident, is subordinate. The serous membranes of the large cavities, and of the joints, and the ligaments, are eminently affected. Finally, the female sexual organs are in such wise affected that menorrhagia is produced, the discharge being florid.

"The secretions from the intestinal surfaces are diminished; the capillary circulation somewhat impeded in the mucous membranes, but particularly so in the serous membranes which line the closed cavities of the pleura, peritoneum, pericardium, and joints. As a sequel of this impediment, we have effusion (so called) into the cavities."

In all diseases, the great characteristic for Bryonia is stitching, tearing pains, greatly aggravated by motion, relieved by rest, and worse at night.

People with a choleric temperament, bilious tendency, dark hair and complexion, with firm, fleshy fiber.

Head.—Exceedingly irritable; everything makes him angry. Headache as if it would split open; greatly aggravated by motion, opening the eyes, or stooping; relieved by pressure and closing the eyes.

Congestive headache as if the forehead would burst open, sometimes with epistaxis.

Confusion of the head, a distracted state of the sensorium. When we consider this symptom in conjunction with the peculiar febrile symptoms, the lassitude, etc., we shall perceive its significance.

"Great heaviness of the whole head; weight upon the vertex. Vertigo when fasting, when standing, and especially on first rising from a seat, compelling to sit, often conjoined with headache in the occiput, aggravated by motion."—D.

"The majority of the head symptoms of Bryonia refer to the occiput; and we shall find it more frequently called for in headache involving the occiput. The pathologico-anatomical results of Bryonia-poisoning are: Redness of the diploe, injection of the inner surface of the cranium, congestion of the membranes. A section of the cerebral substances is dotted here and there with blood."—*D.*

"The head symptoms point to inflammation of the brain; but I think the character of the fever and of the affection of the sensorium is such as to show that it is not likely to be a remedy in pure idiopathic encephalitis. If a remedy in encephalitis at all, it must be in those cases in which meningitis has supervened, by metastasis or otherwise, from some miasmatic or exanthematic disease."—*Zlatarovich.*

"Bryonia is of great value in simple non-inflammatory congestion of the brain, arising from suppressed menstruation; exposure to intense cold, sea-sickness, or long-lasting constipation."—*Hughes.*

Eyes.—Eyes very sore, and feel as if they would be pressed out of the head; fear of the future. Rheumatic iritis, ciliary neuralgia. Choroiditis; serous, exudative form. Rheumatic hyperæmia of optic nerve and retina.

Nose.—Frequent bleeding of the nose, when the menses should appear; frequent epistaxis. (Very valuable.)

Face.—Swollen, red, hot, and puffed; eyes closed; erysipelatous.

Mouth.—Lips dry and cracked; patient wants to wet them with his tongue all the time.

"Desire for things that can not be had, or which are refused or not wanted when offered."—*G.*

Tongue coated grayish, or thickly yellow, with lips dry and cracked; or dry, brown tongue.

"Motion more or less constant, of the jaws, as if chewing something; lips dry and cracked."—*G.*

Shooting pains in the teeth.

The mouth is unusually dry, with thirst.

Everything tastes bitter.

Stomach.—"Can not sit up, from nausea and faintness."—*G.*

"Food is thrown up immediately after eating, with constipation, and the lips dry and cracked."—*G.*

Pressure in the pit of the stomach, as if there was a stone in it; goes off with much eructation; lasts two hours.

Bitter or sour eructations, with sour vomiting.

Stomach becomes extremely sensitive to the touch or pressure.

Abdomen.—"Pressure in the epigastrium, worse after eating and when walking; this pain sometimes extends all over the abdomen."—*D.*

"Pains, stitching and shooting, in both sides of the abdomen, the stitches most frequent in the region of the spleen; aggravated by motion."—*D.*

Tensive, burning pains in the hepatic region.

Peritonitis, with sticking, burning pains; abdomen very sore to the touch, with constipation.

Zlatarovich calls especial attention to the tenderness of the abdominal walls generally; to the burning pains along the connection of the diaphragm with the ribs; to the sensitiveness of the hepatic region to the touch and on deep inspiration; also to the fact that Bryonia diminishes the intestinal secretions, weakens the peristaltic action of the bowels, and retards the stool. Inflammation of the liver, with stitching pains, worse by motion; the liver sometimes is much enlarged.

Stool.—Diarrhœa in the morning, soon as she moves.

Diarrhœa brought on by cold drinks in warm weather. Burning diarrhœa (acid); worse in hot weather.

"Diarrhœa worse every spell of hot weather."—*G.*

Dysentery, much tormina; stools of mucus and blood, or pure blood; with low typhoid symptoms.

Constipation, stools dry and hard as if burnt.

Stool large, solid, evacuated with great difficulty, frequently attended by prolapsus of the rectum, sometimes attended with alternate diarrhœa and constipation.

Urinary Organs.—The urine red, hot, and diminished in quantity.

Sexual Organs, Female.—Bryonia uniformly hastens the coming on of the menses, and increases the flow.

"Frequent bleeding of the nose when the menses should appear."—*G.*

During menstruation, has tearing pains in the abdomen and legs, aggravated by motion.

Milk Fever.—"Bryonia is one of our most valuable remedies in this fever; for it is one in which chill predominates; it is a mixture of chill and fever, the chill much in excess; and, moreover, the gland which is the seat of the pain becomes rapidly sore and sensitive to touch or motion. Bryonia is the foremost remedy in inflammation of the mammæ during lactation."—*D*

Stony hardness of the mammæ.

Respiratory Organs.—"We lay great stress on the fact, that, in the Bryonia catarrh, the mucous secretion is diminished; because a great majority of the symptoms which are considered to indicate Bryonia derive their significance from this fact, and it will serve to keep them in memory: They are, hoarseness, hacking cough, which sets in, especially in the morning and evening; generally dry, or yielding but a little tenacious mucus, which is sometimes streaked with blood, and sometimes causes retching and vomiting; with stitching pains in the chest, and pressive pains in the head."—*Dr. Wurnb.*

Violent catarrh, involving the pleura, with stitching pains, greatly aggravated by deep inspiration, or motion.

Dr. Dunham says: "It is very characteristic of the Bryonia cough, that, while coughing, the patient presses his hand upon the sternum, as though he needed to support the chest during the violent exertion; and the parts which are the seat of subjective pain become subsequently sensitive to external pressure."

Tough, scanty, bloody expectoration.

Can not expand the chest, by reason of the stitching.

Pains in the sides of the thorax, with dry cough, which seems to come from the stomach.

Pleuro-pneumonia. Bryonia is almost a specific; and, in the second stage of pleurisy, after the stage of serous effusion has commenced, no remedy can equal Bryonia.

Fever.—Cold, chilly sensations predominate in fevers calling for Bryonia, showing that the posterior portion of the spinal column is especially affected.

Boenninghausen describes the Bryonia fever as follows: "Pulse hard, frequent, and tense; chill and coldness predominate, often with heat of the head, red cheeks and thirst; chill with external coldness of the body; chill and coldness most at evening, or on the right side of the body; chill more in the room than in the open air; dry, burning heat, for the most part only internally, and as if the blood burned in the veins.

"All the symptoms aggravated during the heat. Sour sweat."

The action of Bryonia upon the serous and fibrous tissue, as shown by the stitching, tearing pains, makes this drug one of our most important remedies in rheumatism. Its symptoms of the extremities simulate a muscular rheumatism; while its action upon the joints shows it to be still more appropriate to articular rheumatism. The joints are much swollen and reddened; streaks of red extending up and down the limb; very sensitive to touch, and especially aggravated by motion, and not apt to change its location.

Back.—Here we have a variety of rheumatoid symptoms; as "sticking, jerking, pressing pains between the scapulæ, and extending thence through to the epigastrium when sitting; pain in the lumbar region and sacral region as if beaten; stiffness, tearing, and tenderness in the joints and muscles of the lumbar region, which prevent motion and stooping; these are felt most when standing or sitting, and not so much when lying."—*D.*

Upper Limbs.—"The limbs and the joints swell, become red, and are very sensitive to touch or motion, but are relieved by warmth; the small joints pain as if luxated."—*D.*

"Painful pressure in the right shoulder when at rest, with tearing pains in inner surface of fore-arms; stitching pains from slightest motion."—*Hah.*

Lower Limbs.—Here all the symptoms point to rheumatism; as weariness, heaviness and stiffness of all the joints.

"Great painfulness of right thigh; the pain comes from the head of femur and extends along the anterior surface of thigh to knee. Synovitis of knee-joint; red, swollen, excessively painful to touch and on motion; effusion into joints."—*D.*

Bruised pain in calf of leg; hot swelling of the ankles and feet; joints very stiff; stretching out or motion is excessively painful; acute inflammatory rheumatism.

Limbs so weak is compelled to sit down; legs tremble, and the knees knock together.

Swelling of the ankles and feet; pain as if sprained.

Acute inflammatory rheumatism, with all its symptoms.

Every spot in the body is painful on pressure.

Aggravation.—Motion greatly aggravates the pains of Bryonia; also cold; mental excitement; sitting up; noises; and at night.

Amelioration.—During rest; warmth of bed; warm weather; after perspiration, and in the day-time.

CACTUS GRANDIFLORUS.

Night Blooming Cereus.

Habitat: West Indies, Mexico, etc. Tincture of the young twigs and flowers, Class III.

Antidotes.—Acon., Camph., Cinch., Bry., Rhus tox.

Through the cerebro-spinal nervous system, Cactus has three special centers of action:

- I. CIRC'N. *Stimulation; Contraction of Circular Arterial Fibers.*
- II. PNEUMOGASTRIC NERVE. *Paresis; Acid Stomach.*
- III. MUSCULAR SYSTEM. *Rheumatoid Inflammation.*

Heart and Arteries.—Cactus is a special irritant of the heart, and controls its action through the ganglia of that organ. It also especially acts upon the first cervical ganglion, that controls the circulation of the brain. Through this, it affects the circular fibers of the heart and arteries; causing irritability, hyperæsthesia, neuralgia, spasm, and palpitation of the heart.

Pneumogastrics.—By its action upon the pneumogastric nerve, Cactus affects the heart, lungs, and stomach; producing, in the stomach, indigestion and excessive acidity; in the lungs, constriction and asthma.

Therapeutic Individuality.

In all diseases calling for Cactus, there will be more or less irregularity of the heart's action, with great nervous excitement, and palpitation in the scrobiculus.

Debilitated people, with indigestion, and a feeling of constriction, or as if an iron band were around the heart, preventing its normal action.

Palpitation of the heart day and night, with great melancholy, from indigestion.

Sense of contraction in all parts of the body.

Difficulty in breathing, with great nervous excitability.

Rheumatic diseases where there is more or less cardiac disturbance and the central organ of circulation is at fault.

Pressive headache in the vertex during the menopause.

Dr. Rubina claims that it does not weaken the nervous system like Aconite, while at the same time it relieves congestion and removes irritations similarly to Aconite.

Aggravation.—Morning, evening, and from motion.

Amelioration.—In open air.

CALCAREA CARBONICA.

Carbonate of Lime

Chemical preparation from Oyster shell. Trituration.

Antidotes.—Nitric acid, Sulphur, Nux vomica, Camphor, Mercury.

Through the great vegetative nervous system, Calcarea has five special centers of action :

- I. OSSEOUS SYSTEM. *Non-Ossification, Rachitis, and Caries.*
- II. LYMPHATIC GLANDULAR SYSTEM. *Atony and Hypertrophy.*
- III. SKIN. *Pale, Atonic, Flabby; Copious Perspiration.*
- IV. MUCOUS MEMBRANES. *Catarrhal Mucorrhœa.*
- V. BLOOD. *Hydræmia; Anæmia; Water Increased.*

Osseous System, Including Cartilages.—The Carbonate and especially the Phosphate, of Lime, is a necessary constituent of all the tissues of the body, both hard and soft. It forms more than fifty per cent of the substance of the bone and teeth, and gives them their solidity; to the soft and growing tissues, muscles, and nerves, Lime is an essential food, promoting cell growth and nutrition; and it is found in abundance in the inter-cellular fluid of the body; also, in smaller quantities, in the blood.

Dr. Ringer says, that in the herbivora the inter-cellular fluid is as rich in this salt as in the carnivora, though the vegetable feeders take so little of it with their food; hence it must be carefully retained in the inter-cellular fluid for some important purpose.

Schmidt's observations show that a certain quantity of Phosphate of Lime is required to supply the first basis for the new tissues, even in the case of those organs which subsequently exhibit

an excess of Carbonate of Lime, as the shells of animals; an observation showing that the Phosphate of Lime is necessary to initiate growth, and, in this respect, is not interchangeable with the Carbonate.

Wherever cell-growth is active, there is Phosphate of Lime in excess,—a statement holding good both with regard to healthy and diseased growths; for this salt is found to prevail in disease associated with rapid formation.

Phosphate of Lime is soluble in acids; and, as the inter-cellular fluid is acid, we should therefore expect that the Phosphate would accumulate in it; and a portion of these Lime salts may unite in the body and form Phosphoric acid.

The withdrawal of the salts of Lime from the body produces an atonic state of the vegetative nervous system, thereby causing imperfect ossification from lack of Phosphate of Lime, as found in children with slow dentition, late closing of the fontanelles, walking at a late date, caries, and a general state of rachitis. According to Roloff, a herd of cows which had been fed upon hay from a certain meadow, were very much out of health, and suffered from *fragilitas ossium*. On examination, the hay was found to be nearly free from earthy salts; and, upon bone meal being given to the cows, they recovered their health in four weeks.

Haubner affirms that cattle fed exclusively upon potatoes, or upon roots very poor in phosphates, fail to fatten, become weak, and are apt to suffer from caries; but if the Phosphate of Calcium is given, they rapidly improve. Boker has found, that, when Lime salts are given to wet-nurses whose milk contains an abnormally small amount of phosphates, the milk soon becomes rich in the earthy salts.

Lime should not be taken out of the food of man or animals. If it is, sooner or later they waste, sicken, and die.

In the ligaments and white structures that have but little vitality or blood, and are nourished by lymph, obstructions and non-development predominate.

Lymphatic Glandular System.—The lymphatic glandular system in general, and the *mesenteric glands* in particular, are in an atonic, hypertrophied condition, as found in *tabes mesenterica*; a general disorder of the secondary assimilation prevails, and the digestion of food and its metamorphosis into blood and tissue do not proceed as they should do. Consequently, there follows a large class of diseases due to disorders of the secondary assimilation, scrofula, tuberculosis, and the like.

"M. Seissier has found, that, in the early stages of phthisis, there is a very great increase in the excretion of the earthy phosphates by the kidneys; and the researches of Prof. Beneke are said to have shown that this increased renal elimination, which plainly occurs in several allied diseases, is not accompanied by any increase in the amount ingested in the food, or decrease of the amount eliminated by the intestines, and that, consequently, there is very decided wasting of the normal phosphates of the body. This being so, the use of Phosphates in these diseases is as rational as that of Iron in anæmia."—*Dr. H. C. Wood.*

Goiter, or bronchocele, is a prominent effect of Lime taken to excess in the system by the use of water impregnated with Lime salts.

Skin.—Pale, dry, and flabby; hair dry and looks like tow; head and upper part of the body perspire profusely; feet perspire, and feel as if they had cold, damp stockings upon them continually. Unhealthy skin; it often ulcerates from the slightest cause.

Mucous Membranes.—Catarrhal inflammation, with increased secretion of mucus. In all parts of the system where we have mucous membranes.

Blood.—Calcarea produces hydræmia, anæmia, and general lack of the red corpuscles, with increase of the water from imperfect assimilation of food.

Therapeutic Individuality.

This remedy is especially adapted to constitutional diseases of scrofulous people, and is particularly suitable for women and children of leuco-phlegmatic temperament, where the assimilation of the digested food and its change into tissue do not proceed as they should.

Children with dry, flabby skin; large, open fontanelles; much perspiration in large drops on the head, which wets the pillow far around where the child is sleeping; and fragilitas ossium.

"Fair and pale children, the muscles soft and flabby; hair dry, and looks like tow."—*G.*

People that are weakly in general; walking produces great fatigue in going up stairs, is out of breath; has to sit down to breathe.

The feet perspire, and feel constantly as if they had on cold, damp stockings.

Tendency to early obesity. "The activity of the lymph glands is not proportional to the capacity for assimilation; oxidation is imperfect; hence, there is a rapid deposit of fat in cellular tissue, especially about the abdomen; but tissues are imperfectly nourished; though apparently robust, he is really sickly; his plethora is apparent; his blood is watery, and contains too many white corpuscles."—*Dr. E. A. Farrington.*

Cold, damp air seems to go right through the patient, and he is constantly taking cold; much emaciation; and in children with bloated abdomen.

Hughes says: "Calcarea is indicated, not in primary, but in secondary, disorders of assimilation. These are scrofula; tuberculosis, and rachitis. It is useful for rachitis, difficult dentition, imperfect ossification; delay of the power of walking; for scrofula, adenitis, mesenteric disease, chronic diarrhœa, eruptions, etc."

"It is peculiar to Calcarea that the head very easily becomes cold, and seems affected thereby, so that headache results, and the integuments of that particular part become sensitive. A muscular strain produces headache."—*D.*

Head.—Vertigo on running up stairs is a marked symptom.

"Fear of going crazy, or that people will see her, and suppose her to be crazy."—*Hg.*

"Anxiousness, shuddering, and awe, as soon as the evening comes on. As often as the patient falls asleep, the same disagreeable feelings arouse him."—*Hg.*

Head too large; fontanelles not closing; great accumulation of dandruff on the top, with copious perspiration of the head and upper part of the body.

"Chronic headache depending upon brain-fag; the pain is dull; worse in the morning, and the head often cold."—*Hughes.*

Much mental trouble about imaginary things.

"Great fear, as if located in the epigastrium, causing a sensation as if from a shock."—*Jahr.*

"Heavy, aching, pressing headaches; worse by reading and stooping; stooping produces a bewildered sensation."—*G.*

"A feeling of congestion alternating with a sensation of icy coldness in the head."—*D.*

Eyes.—Chronic scrofulous conjunctivitis, with excessive secretion of mucus in the eyes (marked symptom); lids very much swollen; great lachrymation and photophobia.

Dimness of the cornea; all objects look as if seen through a mist; ulceration and opacities of the cornea.

Long-lasting supra-orbital neuralgia.

The curative sphere of Calcarea is very extended in sub-acute and chronic diseases of the eye, depending mainly upon the general cachexia of the patient.

Ears.—Chronic otitis in scrofulous children, with much mucopurulent discharge; noises; deafness, and sputtering sound in the ears.

Mouth.—Tongue coated and white; sides blistered.

"Sour taste in the mouth, or of food; sour vomiting, especially in children during dentition, and sour diarrhœa."—*Hg.*

Toothache from cold water, or cold air; slow dentition.

Stomach.—"Acid dyspepsia, most obstinate cases; the fount of acid seems inexhaustible."—*Hughes.*

Everything eaten rises acid, especially fats, oil, or sugar.

"Longing for eggs, particularly with children, in sickness, or during convalescence."—*Hg.*

"The tongue is sore at the tip, sides, or dorsum, so that she can scarcely eat."—*G.*

"Vomiting of the ingesta, which tastes sour."—*Lippe.*

"In cholera infantum; excessive acidity of the stomach, and partial or total deficiency of biliary secretions."—*Bachr.*

"Swelling over the pit of the stomach, like a saucer turned bottom up."—*G.* [Very characteristic.]

Stool.—"Copious, watery, sour-smelling diarrhœa is the surest indication for Calcarea."—*Bachr.*

Painless, putrid, sour-smelling diarrhœa, worse evenings.

"White, chalk-like stools."—*G.* [Abdomen bloated.]

"Chronic diarrhœa, clay-like stools."—*Hughes.*

"Feeling of coldness in the abdomen and thighs."—*G.*

"Can not bear tight clothing around the hypochondria."—*G.*

Kidneys.—"There are involuntary emissions of urine when walking."—*G.*

Urine has a brown, bloody, or white sediment.

Sexual Organs, Male.—"Calcarea increases sexual desire and provokes emissions, but unusual weakness follows indulgence, and ejaculation is tardy."—*D.*

"When, during coition, erections are of too short duration,

showing weakness of the spinal cord, Calcarea will strengthen; especially if there is burning and stinging while the semen is discharged."—*Dr. W. M. McGeorge.*

Spermatorrhœa, where there is excessive weakness, in young people growing rapidly. (Use the C M dilution.)

Sexual Organs, Female.—"The history of the case shows that the menses have been too profuse, return too often and too soon."—*G.* [Very characteristic.]

"The least excitement causes the menses to return."—*G.*

Profuse albuminous, milk-like cervical leucorrhœa, with great lassitude from loss of albumen.

"The least excitement causes a return of the menses."—*G.*

"Finds it difficult to stand, on account of a pressing-down as if the internal organs would press out."—*G.*

Profuse leucorrhœa, like milk, with chronic catarrhal vaginal inflammation, with much aching in the vagina.

Breasts.—These are "distended; milk scanty; she is cold, and there seems to be want of vitality to bring the milk forward."—*G.* [Especially in large, lymphatic, flabby women.]

"Healthy women, with deficient and defective lactation; children die early, with diarrhœa and convulsions."—*H. Goullon.*

Respiratory Organs.—This is one of the most useful remedies in the *Materia Medica* for tuberculosis.

Dry, tickling cough, aggravated by speaking, with excessive debility; loss of breath from ascending a height, and constant inclination to take cold.

"Cough, with rattling of mucus in the bronchi, aggravated mornings."—*G.* [Worse from cold, damp air.]

Hæmoptysis, with ulceration of the lungs; great emaciation and debility, with constant inclination to take cold at every change of the weather.

Great emaciation; abdomen bloated, and the least cold goes through and through the patient.

Hectic fever, with copious perspiration of the head and chest, and sensitive to cold air.

Much aching of the chest, with oppressive breathing; sudden stitches, especially between the scapulæ.

Generalities.—Very difficult to sleep at night, and sleepy during the day.

"Sweat copious by day, during motion, also at night, and early in bed, then chiefly on the limbs."—*D.*

Copious night sweats, especially in children.

In children, the glands of the neck are enlarged, with dry, flabby skin, and cold, damp feet.

Chronic urticaria, especially in fat children.

"Children and sucklings become thick and gross as if fat, but are pale and unhealthy."—*D.*

Grauvogl recommends Calcareo highly, for mothers whose children die with hydrocephalus, to be given to the mother during gestation, as a preventive; and many physicians have used successfully this "nutrition remedy," enabling parents to raise children, who could not without the use of the Lime salts.

Limbs very weak; children learn to walk very slowly; feet perspire constantly, as if had on cold, damp stockings.

Aggravation.—From cold, damp east winds; from getting wet; when ascending heights; lying down with the limbs hanging; from loss of fluids; and from light in general.

Amelioration.—In dry, warm weather; after breakfast, and from loosening the garments.

CALENDULA OFFICINALIS.

Common English Marigold.

Habitat: Europe, Asia, etc. The herb in bloom, Class I.

Through the cerebro-spinal vaso-motor nervous system, Calendula has one special center of action:

I. VASO-MOTOR SYSTEM. *Arterial Capillary Paralysis.*

Arterial Capillary Vessels.—Through the vaso-motor nerves, the capillary vessels become partially paralyzed, and consequently receive more blood than usual. From this increased irritation, which attracts a large amount of colorless corpuscles, together with the viscosity, or adhesive qualities, of these corpuscles, we get adhesive inflammation that is most beautifully shown us in lacerated wounds, in which, when Calendula is used, we get union by first intention, without suppuration.

Therapeutic Individuality.

Cut and lacerated wounds heal by first intention, in a most wonderful and marvelous manner, when this remedy is used locally and internally. Locally, the *cerate* will be found of great value where *Calendula* is indicated.

CAMPHORA.

Laurus Camphor.

Habitat: Asia, etc. Alcoholic attenuation, Class III.

Antidotes.—Wine, Opium, Amyl, Niter *sp. dulc.* (Coffee increases its action.)

Through the cerebro-spinal nervous system, Camphor has five special centers of action:

- I. CERE BRO-SPINAL S. *Sensory and Motor Spasm and Paralysis.*
- II. CIRCULATION. *Stimulated; Chills Predominate.*
- III. DIGESTIVE ORGANS. *Stimulation.*
- IV. URINARY ORGANS. *Retention of Urine; Strangury.*
- V. SEXUAL ORGANS. *Increased Desire; Complete Impotence.*

Cerebrum and Spinal Cord.—Camphor especially affects the brain and sentient nervous system, as well as the motor nerves, and through these the muscular system; as shown by the vertigo, mental confusion, coma, and convulsions. Dr. Harley says its effects "are chiefly those of sedation of the motor and ideational centers of the cerebrum, with much giddiness."

From the effect of Camphor upon the sentient nervous system, and through that upon the vascular, is derived its chill-producing power, in which we have its most useful field of action. As chill and depression are the most prominent effects of Camphor, it should be called our *cold remedy*; even in the fever following, chilliness predominates throughout.

Pneumogastric.—Through this the heart, lungs, and stomach are acted upon. By its action upon the heart, moderate doses quicken and strengthen the pulse, while large doses slacken and weaken the pulse.

Wood says: "The action of toxic doses of Camphor upon the circulation is decided. In poisoned frogs, the cardiac beats become slow and powerful; and, as Hubner found that Camphor was able to excite the heart when arrested by Muscarin, it is probable that its action is upon the heart itself. In the extended researches of Weideman, it was found, that, in the convulsive stage of Camphor-poisoning, there is a very marked rise of the arterial pressure, which is largely due to the convulsions and disturbance of breathing, as it is in a measure prevented by Curarization and artificial respiration. Under these circumstances, however, sudden periodical elevations of all the arterial pressure occur. The cause of this phenomenon is not obvious, as Weideman affirms that it is prevented by section either of the cord or vagi. As, after section of the cord, toxic doses of Camphor lessen the arterial pressure, it would seem probable that it is directly depressant to the heart."

Stille says: "The direct and primary action of large doses of Camphor, twenty to sixty grains, is a powerful, but not a permanent, *sedation* of the nervous and vascular systems, followed by ataxic phenomena, and remotely by slight fever.

"The direct and primary action of small doses, one to fifteen grains, is to *stimulate* and *excite* the nervous and vascular systems, and through them the whole organism; but the excitement is of short duration, and is not followed by exhaustion or depression."

"According to Sachs and Dulk, Camphor, in medicinal doses, excites the general sensibility, but in a particular manner the sensibility of the vascular system; and Murray declares that it is evidently stimulant. Vogt is of opinion, that, if we add the results of physiological experiment to those of clinical observation, no doubt can remain of the stimulant qualities of Camphor. He thinks, indeed, that no other stimulant of the same class is comparable with it, and that, in the extremest state of debility, Camphor is sometimes successful when all other medicines are fruitlessly employed. Camphor, says Richter, evidently belongs to the class of oleo-ethereal medicines, and, like those, acts as a powerful stimulant. It is by far the strongest and most searching medicine of its class, from all the rest of which it is distinguished by its rapid, durable, and widespread action on the nervous system. When the powers of life are low, and the skin is moistened with a cold sweat, it is often the most efficient of remedies. Oesterlen, and also Neumann, contend for the excitant properties of Camphor. The latter declares it to be diapho-

retic and antispasmodic, and that, in fine, it is one of the most thorough and active stimulants. Mitscherlich infers, from a review of numerous recorded experiments, that the sedation produced by very large doses of Camphor depends upon its local action within the stomach, while the subsequent excitation is due to the absorption and circulation of the particles. Pereira affirms, that, in moderate doses, it exhilarates and acts as a vascular excitant. Dr. Chapman is of opinion that 'few medicines more unequivocally display their stimulant powers,' and Eberle states that he has several times taken scruple doses of Camphor, and found the pulse slightly increased in fullness, while he experienced giddiness and fullness about the head."—*Stille*.

Lungs.—"Ten to thirty grains produce great paleness of the skin; dimness of vision; frequent and oppressed breathing; lessened, unequal, and intermittent pulse, with frequent rigors. Some are seized with death-like coldness that lasts for an hour or so.

"Dr. Cullen's patient, a lady, took forty grains of Camphor, and became insensible; her pulse was very weak and small, her breathing hardly to be observed, and her whole body pale and cold. Duteau relates, that one drachm of Camphor was given to a girl in a very severe colic. After taking it, the pain soon became easier; but it brought on such an extreme cold over all her body, as resembled death, and which could hardly be removed by the aid of warm cloths, and the internal use of wine."—*Stille*.

Stomach.—The action upon the stomach is not prominent; but large doses produce burning in the stomach, vomiting without much nausea, and sometimes inflammation. In animals, inflammation, ulceration, and death have often been produced; but I judge that this is from the local action of large doses given them.

Camphor produces an atonic state of the intestinal canal, and is useful in diarrhœa. It acts as a stimulant, and should be used in from one to five grains at a dose.

Muscular System.—Through the motor nerves, it has a prominent action upon the muscular system, as shown by the weariness, staggering gait, general debility, and convulsions; cramps in the calves; knees give way and tremble; arms and hands stiff, cold, and tremble; tetanic spasms of the arms, hands, feet, and lower jaw.

Urinary Organs.—Strangury, and retention of urine, is a prominent effect of Camphor; and, in cases of strangury caused by Cantharis, we have no more certain remedy than Camphor.

Sexual Organs, Male.—The power of Camphor on these organs is most marked and profound; as shown by the satyriasis, voluptuous dreams; impotence, with a cold, flaccid condition of the organs. I can not illustrate its action better than by giving a few cases cured by the remedy, given by Stille, in his *Materia Medica*: "Muller cured an irrepressible venereal desire and excessive priapism in a clergyman, by prescribing Camphor in ascending doses until a drachm was taken daily. Richter successfully employed large doses of the medicine for a patient affected with sleep-walking and priapism, and who had formerly been addicted to onanism, and experienced convulsive attacks under the excitement of sexual lust. When persons who can not be weaned from the habit of self-pollution are threatened with spasmodic attacks, or with the emaciation peculiar to such cases, Camphor should be administered, and not in too small doses. If, however, its use be too long persisted in, there is danger of emasculating the patient. Schneider speaks of a stout and healthy youth of nineteen, who had been piously and virtuously brought up, but who became suddenly enamored of his step-mother, and whose lust grew so furious that his testicles swelled, and the flow of semen interfered with his urination. He was soon completely cured by the internal and external use of Camphor. Eberle says: 'I was consulted by an elderly married man, of rigidly moral habits, who suffered very much from painful erections, and an incessant propensity to venery. He was of a gloomy disposition, which was much increased by his complaint. Camphor was given in two-grain doses three times a day. In a week he was almost entirely relieved, and completely cured in a few days after.'"

Sexual Organs, Female.—The action of Camphor upon the female sexual organs is similar to that upon the male. Alibert relates a case of a woman twenty-eight years old, who thoroughly subdued a violent paroxysm of sexual passion by taking a drachm of Camphor. On two previous occasions she had used the medicine with equal success. The above cases show "that large doses of Camphor are sedative to the morbid as well as to the normal action of the sexual apparatus." But such large doses are not necessary. I have had good results from two to five grain doses, to quiet sexual passion.

Therapeutic Individuality.

Great coldness of the external surface, with sudden and complete prostration of the vital forces. Long-lasting chills.

"Great coldness of the skin, yet the child can not bear to be covered."—*G.*

"Extremities cold and blue, with cramps."—*G.*

"Skin cold as marble, can not bear to be covered, with rattling in the throat, and hot breath."—*G.*

"Features distorted; eyes sunken; face, hands, and feet icy cold; great anguish as though he would suffocate; stupid; groans and moans; hoarse, husky voice; burning in the stomach and œsophagus; cramps in the legs, great faintness and prostration."—*Raue.*

"Especially adapted to choleraic diseases, and the first stages of catarrh.

Head.—Nervous headache, with throbbing in the cerebellum, like the pounding of a hammer, with palpitation of the heart, and spasmodic dysphagia. Loss of memory, and great despondency.

Digestive Organs.—"No thirst, no nausea, no vomiting, no diarrhœa, with cramps in the legs."—*Raue.*

Burning heat in the stomach.

Involuntary diarrhœa. In many cases of diarrhœa, at the first start, a large dose or two of Camphor will arrest it at once.

Rice-water stools, with great prostration, coldness of the surface, but will not be covered, with cramps. In cholera, Dr. Rubini, of Naples, treated five hundred and ninety-two cases without a single death. He gave it according to Hahnemann's instructions, *ad libitum*, of the saturated tincture.

Urinary Organs.—Strangury, not relieved by urinating, especially if caused by Cantharis.

"Retention of urine, or it is discharged in small quantities; deep red; sometimes green; depositing a thick sediment."—*G.*

Sexual Organs. Male.—Impotence with coldness, weakness, and atrophied condition of the testicles. For excited sexual desire, give large doses.

Gonorrhœa, acute stage, with chordee.

Sexual Organs. Female.—Menses increased. Excellent in dysmenorrhœa. "Her labor-pains have ceased; the skin cold and blue."—*G.*

Chest.—In the first stage of suffocative catarrh, with paralysis of the lungs, as found in epidemic influenza, with coryza and

nasal defluxion, used internally and by olfaction, it will arrest the catarrh at once.

Skin.—Sudden retrocession of eruptions, with cold skin and great prostration, and cerebral symptoms. Dr. Holcombe thus sums up the action of Camphor :

"It is antidotal to almost all the drastic vegetable poisons ; it relieves strangury ; produces reaction from cold, congested conditions ; is the great anti-choleraic ; and quiets nervous irritability better than Coffea, Ignatia, or Hyoseyamus. This is its whole clinical value—and a great one it is—in a nutshell."

Aggravation.—From cold air in general.

Amelioration.—From warm air in general.

CANNABIS SATIVA.

Hemp.

Habitat: Asia, India, etc. Tincture of the fresh blooming herb, Class I.

Antidotes.—Vegetable acids, Camph., Cantharis.

Through the cerebro-spinal system, Cannabis has two special centers of action :

- I. MUCOUS MEMBRANES. (URETHRA). *Inflammation.*
- II. CERE BRO-SPINAL NERVOUS SYSTEM. *Intoxication.*

Mucous Membranes.—Cannabis affects all the mucous membranes, but particularly that of the bladder, *urethra*, and *prepuce* ; producing acute inflammation, with painful, difficult urination ; severe chordee ; burning in the urethra ; the prepuce is dark, red, hot and highly inflamed, with mucous discharge from the urethra. The bladder not so much affected as the urethra. This is the most useful remedy we have for gonorrhœa.

The mucous membranes of the eyes and lungs are also a good deal congested and inflamed, especially that of the eyes.

Brain.—Cannabis produces intoxication and arrest of function, congestive headache ; violent throbbing, with heat in the

head; drowsy and much lassitude; vomiting of bile, and constipation.

Therapeutic Individuality.

Sexual Organs, Male.—For gonorrhœa, after the acute inflammation has been reduced by Aconite, no remedy can equal Cannabis sativa, when given in the tincture and first dilution.

Great swelling of the prepuce, with violent burning pain in the urethra during and after urination.

"Can not walk with his legs close together, as it greatly increases the pain in the urethra."—*G.*

"While urinating, tearing pains along the urethra. Great swelling of the prepuce, approaching to phymosis."—*Franklin.*

The glans and prepuce are dark red.

"Light-red spots on the glans as large as a lentil."—*Teste.*

Severe pains in the kidneys, every few minutes, urine bloody.

Sexual Organs, Female.—"Over sexual excitement in either sex."—*G.*

"Impotence from sexual abuse."—*G.*

"Threatened abortion, on account of too frequent sexual intercourse."—*Hg.*

Too frequent and too profuse menstruation.

Eyes.—Opacities, and dimness of the cornea, especially from badly healed ulcers. Gonorrhœal ophthalmia.

Chest.—Dr. D. S. Smith has great confidence in this remedy for consumption.

"Frequent, teasing, hard, dry cough."—*Teste.*

Cough, with much rattling of mucus (bronchorrhœa).

"Sensation as of dropping, as though cold water was dripping over the heart, or over the head."—*G.*

"Sensation of fatigue; warmth; jerks, or pushes, in the abdomen, as though a living being was there."—*G.*

"Affections of the ball of the foot, or under part of toes."—*G.*

Aggravation.—Forenoons; urination; warmth, and motion.

Amelioration.—Evenings, and from cold air.

CANTHARIDES.

Spanish Fly.

Habitat: Europe, etc. Tincture powdered Spanish fly, Class IV.

Antidotes.—Camph., Calad., Cinch., Sulph., Acids, Alcohol.

Through the cerebro-spinal nervous system, Cantharides have seven special centers of action:

- I. MUCOUS MEMBRANES. *Violent Inflammation.*
- II. SEXUAL ORGANS. *Excessive Sexual Desire; Acute Inflam.*
- III. GASTRO-INTESTINAL CANAL. *Violent Inflam., Mouth to Anus.*
- IV. SEROUS MEMBRANES. *Plastic Inflammation.*
- V. SKIN. *Violent, Acute Vesicular Inflammation.*
- VI. GLANDULAR S. (SALIVARY, TESTICLES, OVARIES.) *Inflam.*
- VII. CEREBRO-SPINAL SYSTEM. *Spasm; Inflammation.*

Mucous Membranes.—Cantharides affect more especially the mucous membrane of the genito-urinary organs; next to this, of the whole gastro-intestinal tract, from the mouth to the anus, and, lastly, that of the respiratory organs. The action upon the lungs is not so prominent as that upon the digestive apparatus.

The most prominent and specific action of Cantharides is spent upon the urinary organs. Not only the kidneys, but the whole mucous tract, from the kidneys to the end of the urethra, is violently inflamed, with pains in the loins, scanty, high-colored urine, mixed with blood, and loaded with albumen and tube-casts, accompanied with burning pains in the hypogastrium, and the most violent and intense strangury.

It acts more especially upon the convoluted secreting tubes, rather than, as Turpentine, on the Malpighian bodies.

"Cantharides are well known to have a peculiar effect upon the bladder, which effect is doubtless produced through the corresponding part of the spinal cord. (Watson's *Practice*, fifth ed., 540.) This conclusion is corroborated by the experiments of Dr. Cantieri, with Cantharides. This observer says: 'The cerebellum and spinal cord are softened, the softening being greater at the lumbar enlargement. As a consequence of this, paralysis is

observed in dogs, rabbits, and frogs.' 'With this evidence of the special action upon the spinal cord,' its action upon the genito-urinary organs is fully explained to be, *not reflex*, but *specific*, through the spinal nerves. 'The noxious influence of Cantharides is especially marked on the kidneys and bladder,' says M. Gubler. Dr. Cantieri is more emphatic: 'Cantharides always induce hyperæmia or inflammation of the urinary and genital systems.' In a case of fatal poisoning, Ives found the 'kidneys inflamed and presenting blood in their pelves.' In a similar case Schuborth observed 'great redness of the tubular part of the kidneys, redness and extravasated patches on the inside of the bladder, and redness of the ureters and urethra.'

"It also occasions severe hæmaturia, albuminous urine, and even a discharge of false membranes *per urethram*,—the said false membranes being found within the calyces of the kidneys, in the ureters and on the mucous membranes of the bladder.' (Bouilland.) According to Bouilland, whenever a Cantharides blister is applied, unless it be a very small one, 'the escape of albumen with the urine is always met with at all ages, and in all states of the system.'

"The same authority records the following post-mortem appearances as found in a man who 'died from fever with pneumonia, and had been blistered *secundum artem*.' 'Albumen appeared in the urine nearly two days before death. The kidneys were red and congested externally,—the redness extending into the cortical substance. The pyramids presented a rosy hue, and seemed elongated. The lining membranes of the calyces and pelves were injected, and strewn with ecchymotic spots, and also with white salient points of irregular figure, and consisting of particles of false membrane.' (*North American Jour. of Hom.*, vol. i., p. 272.)

"Says M. Gubler: 'It is really an endo-nephritis, and not a cystitis, that constitutes the point *du depart* of the albuminuria produced by Cantharides. If the renal irritation becomes more severe, a nephritis parenchymatosa is established.' (*Practitioner*, vol. viii., p. 244.) Cantieri's experiments corroborate this; for he says (*Practitioner*, vol. xiii., p. 445): 'Cantharides always induce hyperæmia or inflammation of the urinary and genital systems; and, in consequence of the desquamative or parenchymatous nephritis, albumen appears in the urine.'—S. A. Jones in *Hom. Observer*, June, 1879.

Sexual Organs.—Here we have inflammation and congestion. The erotic excitement becomes painfully excessive, with pria-

pisms, inflammation of the ejaculatory ducts; and, in the female, the uterus becomes inflamed, with a high state of excitement, abortion, etc.

Sometimes there is violent sexual excitement, insatiable venereal desire, accompanied in man by seminal emissions, violent priapisms, heat and swelling of the organs; severe inflammation of the parts, and even gangrene.

Authorities differ as to the erotic excitement caused by this drug. Taylor says: "With respect to the aphrodisiac propensities caused by Cantharides;—these can seldom be excited in either sex, except when the substance is administered in a quantity which would seriously endanger life." *On poisons, sub voce, per contra*, Prof. H. C. Wood says: "The whole drift of the evidence is that libidinous desires are much more apt to be caused by amounts of Spanish flies but slightly toxic—ten drops of the tincture (Schroff)—than by fatal doses."

"That it does not always act as an aphrodisiac, is shown by some cases observed by Frestel and cited by Taylor. I refer to these variations in its action because old-school critics have found fault with similar variations in our provings."—*S. A. Jones, M. D., in Hom. Observer, June, 1879.*

The inflammation of the sexual organs sometimes becomes so severe that gangrene takes place.

Gastro-Intestinal Canal.—This remedy has a powerful action on the whole mucous tract, from the mouth to the anus; producing congestion, burning heat, inflammation, and vesication of the gastro-intestinal mucous membranes; "intense pain in the stomach, vomiting of glairy mucus streaked with blood; severe abdominal pains, with great tenderness; mucous and bloody stools. The alvine discharges are first mucous, then fibrinous and bloody, often very scanty but excessively numerous, and accompanied by great tenesmus. Sometimes this gastro-intestinal inflammation produces death from collapse; but, if this is escaped, the following symptoms occur; Aching pains in the back, frequent micturition, a constant irresistible desire to urinate, with violent tenesmus of the bladder, and an inability to pass more than a few drops of urine, which is albuminous and bloody."—*Dr. S. A. Jones.*

In dogs, the mucous membrane of the gastro-intestinal canal becomes inflamed throughout, resembling a piece of scarlet cloth.

Stille says: "The action of Cantharides when swallowed is that of an acrid irritant, a burning heat is felt in the mouth, fauces,

œsophagus, and abdomen; there is sometimes ptyalism, together with stricture of the throat, and a difficulty of swallowing so great that the attempt to drink excites violent spasms. Usually there are nausea and vomiting, often of bloody matters; unnatural fibrinous, and sometimes bloody, stools; griping meteorism, and extreme tenderness of the abdomen. These symptoms of intestinal inflammation often terminate fatally."

Serous Membranes.—Cantharides act on all the serous membranes throughout the body, but especially affect the pleura and peritoneum, producing congestion and inflammation, followed by plastic fibrinous effusion.

Inman says it has produced pleuritis; and Gallippe has observed both endocarditis and pleural effusion.

Skin.—Vesicular inflammation of the skin is a specific and prominent effect of Cantharides.

Locally.—No known remedy equals the Spanish fly as an *epispastic*, as millions of blistered mortals can substantiate. Blistering acts on the principle of revulsion; and there is no doubt that it has proved of great utility in a vast number of diseases involving the serous membranes; and also in *neuroses*.

The plaster should be spread upon brown paper, and held in place by strips of adhesive plaster. In adults, to obtain all the benefit of the blister, it should remain on from three to six hours; usually about four is all that is required; and, in many acute diseases, two hours is sufficient to effect a cure. After evacuating the serum by punctures in the most dependent part, apply finely carded cotton to the blistered cutis. But, if the raw and inflamed chorion is exposed, a cerate of acetate of lead will allay the inflammation, and promote the healing of the part.

In all cases of neuralgia, except sciatica, small blisters applied over the affected part for two hours, will mitigate the pain surprisingly, and achieve a cure.

"When a blister is of large dimensions, and is permitted to remain until the occurrence of full vesication, strangury and other constitutional effects of Cantharides sometimes ensue; such as pains in the loins, colic, thirst, difficult micturition, ardor urinæ, hæmaturia; and even death from the operation of a blister has ensued. When applied near the origin or over the course of lymphatic vessels, the corresponding glands are apt to become swollen and inflamed, and may even suppurate."—*Stille*.

Dr. S. A. Jones sums up the action of Cantharides on these tissues, thus: "*First*, then, consider the *tissue affinities*. These

tissues are in order of affinity: The mucous, the serous, and the skin. These tissues have a morphological similarity of structure; namely, cells on supporting surfaces; 'shingled' surfaces, so to speak.

"*Secondly.* The *pathological type of action.* We find this to be, first, inflammation with fibrinous effusion, which on a free surface assumes a pellicular form; and, secondly, a grade of inflammation that may terminate in gangrene.

"This pellicular phlegmasia, as Pidoux and Trousseau term it, is evidence of a profound action on the blood. It makes the red corpuscles crenated; this indicates an escape of some of their contents, and this some is probably the fibrino-plastic element, as it is named by A. Schmidt. According to the same observer, all exudations contain a fibrino-genetic element; and it is, he says, a mingling of fibrino-plastic and fibrino-genetic elements, that gives fibrin as it occurs in the 'act of coagulation.' (Sydenham Society's *Year Book* for 1863.) Then, the Cantharidal effusion is an extensive blood spoliative; it robs it of two albuminous products, and, from the union of these, we get the fibrinous pellicle."

Glands.—Upon the salivary glands, the action of Cantharides is specific and most powerful, as shown by the severe salivation, and great swelling of the glands. It also affects the testicles and ovaries, as well as the lymphatics, but not so prominently.

Cerebro-Spinal System.—Its narcotic action is very strongly marked, as shown by the congestion and inflammation of the brain, delirium, stupor, pupils dilated, coma, and finally death. Through its action on the *cord*, we have prostration, powerlessness; difficult deglutition; dread of liquids; frightful convulsions; tetanus; collapse and death.

Paraplegia has been noticed in several cases by Dr. Pille.

Through the cerebro-spinal system, Cantharides act quite prominently upon the heart and circulation. Dr. S. A. Jones says: "In accordance with its pathological type of action, it attacks the circulation correspondingly. It is first a stimulant, giving a quickened pulse, increased arterial tension, and a rise of temperature. Secondly, it is a depressant, giving a slowing of pulse, a lowering of arterial tension, and a decline of temperature. The order of these effects, will depend largely upon the dosage; and they are, therefore, primary or secondary phenomena, according as the dose is large or small."

Therapeutic Individuality.

The great key for the use of Cantharides is found in the urinary organs, as shown by the great desire to urinate, with complete strangury, and tenesmus of the cervix vesicæ.

Urine high colored, scanty, with constant desire to void it, but only passes a few drops at a time, accompanied with intense burning pain.

Excessive burning distress in the urethra, with constant desire to urinate; the tenesmus of the cervix vesicæ is complete, with bloody, albuminous urine.

Cutting, burning pains in the urethra, with ineffectual efforts to urinate.

Albuminuria from renal congestion; paralysis before œdema.

Scanty, high-colored, bloody, albuminous urine, often loaded with casts and epithelial cells; severe strangury.

In acute Bright's disease, "when desquamation predominates over congestion, as in post-scarlatinal dropsy, Cantharis takes the highest place."—*Hughes*.

Weakness or paralysis of the sphincter of the bladder, with frequent desire to pass water, but inability to do so, in middle-aged women; and dysuria of old men.

Acute stage of gonorrhœa, with urgent desire to urinate, and at night intense chordee, especially if the inflammation has extended up to the neck of the bladder.

Pain in the loins, kidneys, and abdomen, with so much pain on urinating that he could not pass a single drop without moaning or screaming.

Sexual Organs, Male.—Excessive desire for sexual congress, with painful and frequent urination

Strong and persistent erections, and painful priapisms.

Sexual Organs, Female.—Same morbid, intense sexual desire, with menses too early and too profuse.

"Membranous dysmenorrhœa, in sterile females."—*G*.

Inflammation and much swelling of the os uteri.

Stitching in ovaries, with bearing-down toward the genitals.

Violent itching in the vagina, with swelling of the vulva; intense pruritus and sexual desire.

Mouth.—Thoughts of drinking, sound of water, or touching the larynx, produce spasms.

"Vesicles and canker in the mouth."—*Jahr*.

Mucous membrane red, and covered with small blisters.

Burning pain in the mouth, throat, and stomach, with swelling of the salivary glands, and copious salivation.

Throat feels on fire, and covered with vesicles and plastic lymph; much swollen. Diphtheria.

Stomach.—Aphthous ulcers in the fauces, covered with plastic lymph; violent burning in the stomach, excessively sensitive to the touch; vomiting of blood and mucus.

"Vomiting, with violent retching, and severe colic."—*G*.

"Abdomen swollen and tympanitic, with violent pain through the whole intestinal tract; very painful to the touch."—*Hg*

"Tremendous burning pain through the whole intestinal canal; unquenchable thirst, with disgust for all kinds of drink."—*Raue*.

Stools.—"Stools like the scrapings of the mucous membrane, mixed with blood; urine burning and scanty."—*Hg*.

Great tympanitis of the abdomen, and excessively tender after stool; intense burning in the anus and peritoneum, which seems to come from the neck of the bladder.

Stools of pure blood, with much tenesmus.

Skin.—Vesicular erysipelas.

For chronic eczema, and elephantiasis, it is excellent in large doses; the body seems to be one raw sore, with vesication.

Inflammation of serous membranes, with stitching pains.

Great weakness of the respiratory organs.

Violent destructive inflammations, with burning pains.

Aggravation.—From drinking cold water, and coffee.

Amelioration.—From rubbing, and warmth.

CAPSICUM ANNUUM.

Cayenne Pepper.

Habitat: Central America, etc. Tincture of ripe, dried fruit; Class IV.

Antidotes.—Camph., Canth., Calad., Cinch., Sulph.

Through the cerebro-spinal nervous system, Capsicum has two special centers of action :

- I. MUCOUS MEMBRANES. *Acrid Irritant. Congestion; Inflamm.*
- II. SPINAL CORD. (POSTERIOR PORTION.) *Excessive Chilliness.*

Mucous Membranes.—To the mucous membrane of the mouth, gastro-intestinal canal, and genito-urinary organs, Capsicum is an acrid irritant; producing, whether applied locally or taken internally, congestion and inflammation, followed by a relaxed, atonic mucous membrane.

Large doses produce great derangement of the stomach. Vogt says: "The symptoms are vomiting; gastric inflammation; severe colic, and violent purging."

Spinal Column.—The excessive amount of chilliness produced by Capsicum shows that the posterior spinal cord is especially acted upon. Richter says: "We have paralysis, prostration; vertigo, and much intoxication of the brain."

Therapeutic Individuality.

Smarting, burning pains in the mucous membranes, as though Cayenne pepper were sprinkled upon them.

Fever, where chilliness predominates.

Excessive burning and soreness in the mouth and fauces; the mucous membrane greatly congested; dark red.

In cynanche maligna and diphtheria, it is not only useful internally, but is one of the best gargles that can be used; and, in acute and chronic catarrh, as a gargle, it can not be equaled.

Atonic dyspepsia, with relaxed mucous membrane, much flatulence, and cold stomach.

Mucous diarrhœa, with tenesmus, and much burning in the rectum.

Frequent urination, with much burning in the urethra.

Impotence, atrophy of the testicles; painful spermatic cord; with cold scrotum.

Intermittents, chill commences in the back, and spreads over the entire body; the chilliness predominating.

Marcy and Hunt say: "Its extraordinary power to control the capillary circulation, to bring excess of blood, and then to scatter more than it has brought, enables it to remove congestion as promptly and as effectually as Belladonna."

Relaxed muscular system.

"In delirium tremens, thirty grains in a bolus act most remarkably, producing quiet sleep in from one to three hours, from which the patient awakes conscious and convalescent."—*Stille*.

Aggravation.—From eating, drinking; at the beginning of exercise; cold atmosphere, and at night.

Amelioration.—By continuous exercise; warmth, and during the day.

CARBO ANIMALIS.

Animal Charcoal.

Prepared from Neat's leather. Trituration.

Antidotes.—Arsenicum, Camphor, Belladonna, Lycopodium.

Through the vegetative nervous system, Carbo animalis has three special centers of action:

- I. Lymphatic Glandular S. *Induration; Secretions Putrid.*
- II. SKIN. *Copper-Colored Eruption; Acne, and Boils.*
- III. DIGESTIVE ORGANS. *Indigestion; Dyspepsia.*

Lymphatic Glandular System.—The secretions of the lymphatics are made putrescent by Carbo animalis; and the mam-mæ, testicles, and parotid glands become hypertrophied and in-

durated, the secreting cells of these glands being particularly affected.

Skin.—Carbo animalis produces a dry, brown-colored, coppery skin, with acne, boils, etc.

Digestive Organs.—Here it produces an atonic condition of the mucous membranes, with indigestion, etc.

Therapeutic Individuality.

Glands.—Enlarged, hypertrophied glands, especially of a scirrhus nature with very fetid discharges; in scrofulous, nervous constitutions.

Skin.—Earthy, copper-colored spots on face and body.

Malignant ulcerations of the skin, of a chronic nature, with much burning.

Mouth.—Looseness of the teeth, they are very sensitive to the least cold, the gums bleed easily; aggravated by salt.

Digestive Organs.—"Weak, sore, empty feeling at the pit of stomach."—*G*

Burning of the epigastrium, with waterbrash; acidity.

Cardialgia with much flatulence and much despondency; constipation.

Sexual Organs, Female.—During menstruation, excessive prostration, can hardly stand up, with much pain in sacral region and down the thighs; feels so exhausted by the menstrual functions, she is hardly able to speak; much chilliness.

Menses too soon, last too long, but not too profuse.

Leucorrhœa, watery, acrid, and burning, with great debility. Lochia, acrid, very offensive, last too long, with much exhaustion, and venous plethora.

Malignant ulcerations of the os uteri; discharge fetid. Cancer of the mammæ, and induration of the glands.

Aggravation.—After midnight; in bed; from cold.

Amelioration.—During the day; from warmth.

CARBO VEGETABILIS.

Vegetable Charcoal.

Well-charred coal from red beech or birch wood. Trituration.

Antidotes.—Ars., Lach., Camph., Lyc., Phos., Coff.

Through the vegetative nervous system, Carbo vegetabilis has three special centers of action :

- I. MUCOUS MEMBRANES. *Atony and Mucorrhœa.*
- II. GLANDULAR SYSTEM. *Lymphatics Enlarged; Secretions Acid.*
- III. BLOOD. *Septic; Toxæmic Condition.*

Mucous Membranes.—Vegetable charcoal affects ail of the mucous surfaces, but more especially that of the stomach and upper part of the intestinal tract, producing debility, and increase of the mucous secretions, with excessive acidity, and immense accumulation of gas in the stomach and small intestines.

It also increases the mucous secretion of the lungs, which is very foul.

Lymphatics.—These glands become enlarged, with acid, foul secretions.

Blood.—Charcoal produces a septic condition of the blood, and is very useful in toxæmic diseases.

Therapeutic Individuality.

The power Charcoal has of absorbing noxious gases has given it a high place as a disinfectant for foul sores, and fetid mucous discharges.

Cachectic individuals whose vital powers have become weakened, and whose secretions are excessively foul.

"Patient wants more air, wants to be fanned all the time."—*G.*

Digestive Organs.—Gums spongy, bleed readily; sensitive when chewing.

"The most innocent food disagrees."—*G.*

Tongue coated heavily, white or brown.

"Frequent eructations which afford only temporary relief."—*G.*

"When eating or drinking, sensation as if the stomach or abdomen would burst with gas."—*G.*

This excessive accumulation of gas in the stomach and bowels is the greatest key for the use of *Carbo vegetabilis* we have. It is caused by atony of the mucous membranes.

Burning in the stomach, with creeping sensation up to the throat, and belching of acid food.

"Stomach and bowels greatly distended with flatulence; the gas is generated by the walls of the viscera, rather than from fermentation of the ingesta."—*Hughes.*

Tendency to slimy, fæcal diarrhœa, with much flatulence.

"Indigestion comes on in the evening; restless, can not sleep, with much flatulence."—*W. Bayes, M. D.*

Cholera, with great prostration, Hippocratic face; cold breath; cold knees in bed, with excessive abdominal tympanitis; mind indifferent to all around.

Urinary Organs.—Urine red, scanty, and looks as if mixed with blood.

Sexual Organs, Female.—Menses too early, too profuse; blood too thick and of a foul odor.

Leucorrhœa, thick, ichorous; corroding, and very offensive.

Lochia very fetid, with much abdominal tympanitis.

Sexual organs depressed; very flaccid; impotency.

Chest.—"Great and long-lasting hoarseness."—*G.*

"Greenish, fetid expectoration."—*Jahr.*

"Cough in old people, with emphysema and hypertrophy of the mucous lining of the bronchi; the circulation of the lungs, heart, and abdominal viscera, is very much impeded; very sensitive to cold; worse at night; expectoration profuse, especially if the larynx is invaded."—*Baehr.*

Great tendency of the chest to perspire; and the patient takes cold with the least change of temperature, especially in warm, damp, rainy weather.

"In chronic bronchitis in aged people, with profuse fetid expectoration, from the 6th to the 30th is most useful."—*Bayes.*

Generalities.—Ulcers secreting a foul, ichorous pus, with burning pains. (Locally and internally.)

Icy coldness of the parts; they have a livid purple look (*gangræna senilis*). Excessive debility.

Chronic mal-treated ague; paroxysms irregular; chill predominates in the hands and feet; sallow complexion; abdomen filled with flatulence; acid vomiting, that sets the teeth on edge, with sour, profuse night sweats.

Aggravation.—Mornings; from fat food; abuse of Quinine; in warm, damp weather.

Amelioration.—From cool air; in evening; from eructations.

CAULOPHYLLUM THALICTROIDES.

Blue Cohosh.

Habitat: North America, etc. Tincture of the fresh root, Class III.

Through the cerebro-spinal nervous system, Caulophyllum has two special centers of action:

- I. UTERUS. *Motor Stimulant. Hysterical Hyperæsthesia.*
- II. MUSCULAR SYSTEM. *Rheumatoid Inflammation.*

Uterus.—Through the hypogastric plexus, the co-ordinating influence of Caulophyllum is very decided upon the parturient uterus, stimulating normal contractions, both before and after delivery. The power of regulating intermittent muscular contractions of the uterus, with excessive hyperæsthesia of the organ, is most remarkable and is finely illustrated in dysmenorrhœa of an hysterical nature.

Small Muscles and Joints.—Caulophyllum produces rheumatoid affections, especially of the small joints. This was finely illustrated in my provings.

Therapeutic Individuality.

Nervous, hysterical women, with irregular, spasmodic pains during menstruation, or deficient, spasmodic pains during labor, from debility of the excito-motor nerves of the uterus.

Menorrhagia, or metrorrhagia, with irregular, spasmodic pains in the uterus, the bowels often sympathizing.

Labor. The pains are irregular, spasmodic, and deficient.

Protracted lochia from atony of the uterus.

This is one of the most useful remedies we have for the prevention of premature labor, abortion, or irregular after-pains.

Reflex paraplegia, with hysterical insomnia.

Articular inflammatory rheumatism of the small joints, hands and feet, more especially in women.

Affections of the motor nerves in sympathy with rheumatic or uterine irritation. Spasmodic affections generally.

Aggravation.—Open air; afternoon and evening.

Amelioration.—Warm room, and mornings.

CAUSTICUM.

Kali Causticum.

Chemical preparation. Potentize according to Class I.

Antidotes—Asaf., Coloc., Coff., Nux vom. (Phosphorus increases its action.)

Through the cerebro-spinal nervous (especially spinal) system, Causticum has three special centers of action:

- I. SPINAL CORD. (MOTOR TRACT.) *Paralysis.*
- II. MUCOUS MEMBRANES. *Atony; Catarrhal Inflammation.*
- III. DIGESTIVE ORGANS. *Atony; Indigestion; Tympanitis.*

Cerebro-Spinal System.—Causticum acts on the medulla oblongata, and the inferior recurrent branch of the pneumogastric. We have congestion and inflammation of the mucous membrane of the larynx and trachea, with paresis, or complete paralysis, of the vocal organs.

Facial Nerve (Portia Dura).—The motor nerve of all the muscles of the face is especially affected by Causticum, being completely paralyzed by its action.

Urinary Organs.—The urinary solids are greatly increased. This azoturia, or superabundance of urea from excessive tissue waste, with sour perspiration; debility, and great despondency, often has been arrested with this remedy.

Congestion of the kidney is well outlined in Causticum.

Paralysis, or paresis, of the sphincter of the bladder, is one of the most prominent symptoms of Causticum, and is, also, one of its most prominent "key-notes."

Digestive Organs.—Slow digestion and fermentation are marked effects of Causticum.

Therapeutic Individuality.

Weak, scrofulous people, with excessively sallow complexion, prone to affections of the respiratory organs, or kidneys.

"The main sphere of the therapeutic action of Causticum has consisted in paralytic affections and laryngo-tracheal catarrhs."
—*R. Hughes, M. D.*

"Facial paralysis; can not keep the upper eyelids up; they are really paralyzed, and will fall down over the eyes."—*G.*

Facial paralysis from paresis of the *portia dura*.

Great melancholy; looks on the dark side of everything, especially during menstruation.

Rheumatism of the articulation of the jaw, and zygomatic arch, with numbness and drawing pains.

"Sudden and frequent loss of sight, with a sensation of a film before the eyes."—*G.*

Respiratory Organs.—"It is the best medicine I know of for catarrhal aphonia."—*Hughes.*

"The absence of harmonious co-operation of the vocal cords is one of the most prominent and persevering symptoms of deficient innervation in laryngeal catarrh. Persons recovering from this affection, can not exert the vocal organs to the full compass of the voice, nor use it in all its modulations, for at least two or three weeks after every trace of capillary turgescence has subsided. Any oratorical display at this period tends to perpetuate the defect."—*Dr. Meyhoffer.*

Dry, hoarse cough, with involuntary emissions of urine.

The phlegm in the throat can not be hawked up and produces nausea. (From paresis of the laryngeal nerve.)

"The expectoration only comes up far enough to be swallowed; there is no power to spit it out."—*G.*

Morning hoarseness, with hoarse, dry cough; worse from cold air, with emissions of urine during every coughing fit.

Urinary Organs.—Involuntary urination when coughing. Incontinence of urine from paresis of the sphincter vesicæ.

"Urine loaded with lithic acid and lithates, with great debility."—*Hughes*.

"Difficult, frequent, and painful urination."—*Hughes*.

Diabetes insipidus. (Dr. Bayes has cured several cases.)

Sexual Organs, Female.—"Menses too early and too profuse. After their cessation, a little blood is passed from time to time, for many days, which smells badly."—*G*.

Menstrual flux only through the day.

Acrid, bad-smelling, profuse leucorrhœa.

Over-fatigue causes the milk to disappear.

Digestive Organs.—Excessive acidity of the stomach.

"Constant sensation as if lime was being burned in the stomach."—*Raue*.

Excessive tympanitis, as if the abdomen would burst; aggravated by food.

Flatulent colic, greatly aggravated by food; relieved by lying down, or bending double.

"Obstinate constipation; stools very solid; expelled with great difficulty; present a shining appearance, as if greased."—*Dr. Bayes*.

Vertigo during defecation.

But few remedies have so many prominent anal symptoms.

Skin.—Profuse, sour perspiration.

Itching all over the body; moist tetter.

Secondary syphilis; limbs trembling and paralytic.

Glandular indurations; tearing pains in the joints.

Fever, with chilliness predominating.

Flushes of heat, in women with sallow complexion.

Paralytic rheumatism; can not lie still a minute.

Aggravation.—Cold air and evenings.

Amelioration.—Warm air, and damp, wet weather.

CHAMOMILLA.

Matricaria Chamomilla.

Habitat: Europe, etc. Fresh plant in flower, Class I.

Antidotes.—Camph., Acon., Coff., Ignat., Nux vom., Puls., Cocc., Bor.

Through the cerebro-spinal nervous system, Chamomilla has two special centers of action:

- I. SPINAL CORD. *Hyperæsthesia of Sentient Nerve Filaments.*
- II. DIGESTIVE OR. *Excessive Acidity. (LIVER.) Portal Cong.*

Spine.—Chamomilla acts on the filaments of all of the sentient nerves that are given off from the posterior portion of the cord, producing a state of excessive hyperæsthesia. This hyperæsthesia also extends to the emotional nerve centers, producing excessive anger and vexation with their long train of symptoms. The filaments of the fifth pair of nerves are also in a state of excessive hyperæsthesia. Dr. Hughes says: "It probably has some specific action on the pulp of the teeth; for it gives great relief in ordinary inflammatory and rheumatic face-ache."

Digestive Organs.—Through the filaments of the vagi, Chamomilla acts especially upon the stomach and liver. In the stomach, it produces excessive acidity (making the child smell sour), nausea, and vomiting. This acidity extends to the smaller intestines, producing acid diarrhœa, with excessive green, watery stools, and severe griping, colicky pains in the umbilical region.

Portal congestion in the liver, with stitching pains, and great irritability, with bitter vomiting.

"Chamomilla acts generally on the cells much like Phosphorus, particularly the cells of secretion and excretion of the vegetative system. Elsewhere its action is reflex, consequently not very specific, causing general irritation; hence the restlessness and partial sweat and heat, which is not persistent but partial."—*Dr. I. S. P. Lord.*

Therapeutic Individuality.

Excessive irritability; impatient, snappish, spiteful, fretful; can not give a civil answer; always out of humor.

"Becomes almost furious about pains; worse in the open air, and at night."—*G.*

"Contrary to her condition in health, she is always out of humor, particularly at her menstrual periods, when she is headstrong, even unto quarreling; can hardly speak a pleasant word."—*G.*

"Child is excessively fretful; must be carried up and down the room all the time; is only quiet then."—*G.*

"Child wants different things, and repels them when they are offered."—*G.*

Inflammation brought on from a fit of passion.

In children, one cheek red and the other pale.

Excessive sensitiveness to pain; is too ugly to live.

"Neither lying down, nor sleeping nor sweating lessens the pain; but it is relieved after sweat, or on rising."—*Hg.*

Acid, sour-smelling children, that are excessively irritable, and prone to acid diarrhœa; stools green as grass.

Digestive Organs.—Tongue coated thickly yellow.

Bitter taste, with bitter, bilious vomiting.

"The epigastrium is painfully bloated, in the morning, with sensation as if the contents were pressing into the chest."—*Rauc.*

"Severe colic; abdomen distended like a drum; wind passes off only in small quantities."—*G.*

Colic, with green, watery, slimy, sour diarrhœa, like chopped eggs and spinach; in cholera infantum.

"Green, watery, corroding stools, with colic, thirst, bitter taste, or bitter eructations."—*G.*

"Hot diarrhœic stools, smelling like rotten eggs."—*G.*

"Nightly diarrhœa, with severe colic, causing the child to bend double."—*G.*

Sexual Organs, Female.—"Her pains are spasmodic and distressing; can hardly bear them; wants to get away from them; is very impatient."—*G.*

"Frequent discharge of coagulated blood, with tearing pains, and frequent desire to urinate."—*G.*

"Violent spasmodic, labor-like pains in the uterus, with copious watery urine, and excessively irritable.

Burning in the vagina, as if excoriated, with yellow, smarting leucorrhœa.

Chest.—"Dry, hacking cough; one cheek red, and the other pale."—*G.*

"Tickling in the pit of the throat; causes a scraping, dry cough; worse at night."—*Hg.*

Flatulent asthma, from indigestion.

Convulsions in children from abdominal irritation.

Fever, when the chills predominate.

"Violent rheumatic pains drive him out of bed at night, and compel him to walk about."—*Freedly.*

"Puts his feet out of bed; soles burn."—*Hg.*

"Fretfulness in children almost always depends on the state of their abdominal functions. The sour breath, the pinching pains, the flushed cheek, the greenish motions, are wonderfully under the influence of Chamomilla."—*W. Bayes, M. D.*

The real beauty of the therapeutic power of this drug is not seen until the 6th to the 30th potency is reached. My favorite dilution is the 9th.

Aggravation.—From anger; cold, and at night.

Amelioration.—From fasting; coffee; warm, wet weather.

CHELIDONIUM MAJUS.

Great Celandine.

Habitat: Europe, etc. Fresh root, Tincture; Class I.

Antidotes.—Camph., Acids, Acon., Nux vom., Wine, and Coffee.

Through the cerebro-spinal system, Chelidonium has three special centers of action:

- I. VAGI. (LUNGS.) *Congestion; Inflam. (STOMACH.) Emesis.*
- II. DIGESTIVE ORGANS. *Hyperæmia; Watery, Bilious Stools.*
- III. LIVER. *Congestion; Inflammation; Jaundice.*

Pneumogastric Nerve.—Chelidonium produces, through this nerve, hyperæmia, inflammation, and hepatization of the lungs. We have catarrhal inflammation of the mucous membrane of the trachea and bronchi, especially with hepatic symptoms. (Bilious catarrh.)

Liver.—This is the grand center for the action of Chelidonium. Through the pneumogastric nerve, it produces congestion and active inflammation of the liver, as shown by the acute pain, and tenderness, with pain under the right scapula; soft, bilious stools; deeply tinged urine; jaundice, with nausea and bitter vomiting. Arrest of secretory function from over-stimulation or obstruction of hepatic ducts, with white stools, or brown and watery, with jaundice; urine brown or yellow, and loaded with bile.

Jaundice, congestion, and inflammation of the liver are certainly caused by this remedy; and it has made many brilliant cures of jaundice in acute and chronic hepatitis; jaundice from catarrh of the biliary ducts; jaundice from gall-stones, and jaundice complicated with pneumonia. Several cases of biliary calculi have been cured with large doses of Chelidonium.

Fatty degeneration of the liver has been caused by this drug. All goes to show that it is one of our most prominent hepatic remedies.

Kidneys.—Some think that this remedy acts prominently upon the *kidneys*. Dr. Buchmann thinks it has produced "Croupous inflammation and degeneration of the glandular epithelium." This, I believe, was not an effect of Chelidonium, but an accident; the renal symptoms all depend upon its hepatic action.

Digestive Organs.—From the action of Chelidonium upon the stomach, through the vagi, nausea and bilious vomiting are prominent symptoms; and, in the intestinal tract, from defective portal circulation, we have active hyperæmia, with copious watery, bilious stools.

The gray or yellowish-white stools show a great lack of biliary coloring matter, indicating absorption into the blood of the bile before it can escape into the intestinal canal. The excessive jaundiced condition of the skin also illustrates its powerful action upon the liver.

Therapeutic Individuality.

Respiratory Organs.—Bilious or gastric pneumonia; the mucous membranes are loaded with mucus, from paresis of the vagi; the respiration is rapid, with dark red cheeks, accompanied with the most prominent key for the use of this remedy; viz., "Con-

stant pain under the inner lower angle of the right shoulder-blade."—*G.*

Long-continued cough, with loud mucous rhonchus.

Violent, spasmodic, straining cough, comes in paroxysms, with burning, shooting pains and much lachrymation.

"My experience with it in pneumonia is, that, when the liver is implicated, and the right lung is affected, it will prove useful, if a yellow, slimy diarrhœa is found."—*Hale.*

Bilious cardiac affections, from irritation of the vagi.

Spasmus glottidis, in whooping-cough.

Digestive Organs.—Nausea causes great heat of body.

Tongue coated white, or heavily yellow; slimy taste.

Loathing of food, with bitter taste in the mouth.

Faintness, with aching, gnawing pain in the stomach and spleen, relieved by eating hot food; has a great craving for milk, which is digested easily.

Gastric and bilious diarrhœa; stools slimy, grayish yellow, or watery; aggravated at night.

Summer diarrhœa in children, when the liver is involved.

Distended abdomen, with gurgling, and colicky pains.

Bloating in the stomach; liver very hard and painful on pressure; abdomen feels constricted.

Liver.—Acute and chronic hepatitis; liver sensitive, with pain in the right shoulder, and greatly congested.

Cholesteræmia, with much disturbance of the secretory functions of the liver, and jaundice; liver very sensitive to pressure.

Fatty degeneration of the liver, with albuminuria.

Jaundice from portal hyperæmia or gall-stones.

It has done much good service in gall-stones, with hepatodynia and general jaundice.

Urine.—Urine deeply tinged with bile, and heavily loaded with the phosphates; dark, brownish red.

Neuralgia.—Severe neuralgia of the fifth nerve.

Neuralgia of the eyes, relieved by closing the lids.

Generalities.—Acts best in melancholic, choleric temperaments. Why? Because the functions of the liver and stomach are perverted. Much nervous prostration, and disposition to sleep.

Aggravation.—During the day; mornings.

Amelioration.—By warm drinks; evenings.

CHIMAPHILA UMBELLATA.

Pipsissewa.

Habitat, North America. Fresh plant in flower, Class III.

Through the vegetative nervous system, Pipsissewa has two special centers of action :

- I. BLADDER. *Inflammation; Copious Mucorrhœa.*
- II. GLANDULAR S. (MAMMÆ AND LYMPHATICS.) *Atrophied.*

Bladder.—Through the sacral plexus of nerves, Chimaphila produces inflammation of the mucous membranes of the base and neck of the bladder, with copious discharges of muco-purulent matter in the urine.

It also acts as a diuretic, increasing the secretion of urine, and retains its action upon the kidneys for some little time.

Glands.—Dr. Paine says it will cause atrophy of the mammæ. It also affects the lymphatics, and has proved of much value in scrofula of these organs.

Therapeutic Individuality.

Urinary Organs.—Great quantities of fetid mucus in the urine; accompanied by vesical tenesmus, with frequent inclination to urinate.

"Chronic renal and vesical affections, with an enormous amount of thick, ropy, mucous sediment in the urine. Sometimes it is mixed with blood."—*Dr. E. M. Hale.*

Vesical tenesmus, with great quantities of ropy mucus in the urine.

Nephritic disorders; gravel, with ulceration, urine mixed with muco-purulent matter, and sometimes blood.

Renal dropsy has been cured with this remedy many times, especially after scarlatina.

Ulcers.—In many scrofulous ulcers, it has acted rapidly. Some have even claimed to have cured cancer with this drug.

Mammæ.—In atrophy of the mammæ, similar to Iodine. It has cured tumors of the mammæ, of a scrofulous character.

CHLOROFORMUM.

Chloroform.

Chemical Preparation. Alcoholic attenuation.

Antidotes.—(See "Antidotal Treatment," page 268.)

Through the cerebro-spinal nervous system, Chloroformum has seven special centers of action :

- I. CERE BRO-SPINAL S. *Sensory and Motor Paralysis ; Anæsthesia.*
- II. PNEUMOGASTRIC NERVE. *Paralysis of the Respiratory Centers.*
- III. CIRCUL'N. *Arterial Pressure Lowered; Vaso-Motor Paralysis.*
- IV. HEART. *Paralysis, and Death by Syncope.*
- V. BLOOD. *Contraction and Dissolution of Red Corpuscles.*
- VI. MUSCULAR SYSTEM. *Complete Muscular Paralysis.*
- VII. EYE. *First Stage, Pupil Dilated; Anæsthetic Stage, Contr'd.*

Cerebro-Spinal System.—I shall divide Chloroform narcosis into three stages : First, that of *excitement*; second, that of *anæsthesia*; third, that of *profound narcosis*. This division, however, is not always according to nature ; for the first stage is often very different in different people, and the same with the other two ; but, for convenience of study and practical application, this method appears to me the most useful.

1. *Stage of Excitement.*—The first symptoms after the inhalation of Chloroform are similar to those of alcoholic intoxication, and are generally of very short duration ; but, in athletic persons, and especially in those who have been intemperate, they are often very prolonged and violent. In drunkards, this excitement can not be overcome without grave danger to life. The action upon the emotions during this first stage of excitement is very marked. Most commonly there is great joy, manifested by laughing, singing, talking, with gay gestures, etc. ; "but it is not rare to find the patient melancholy, weeping and wailing, and sometimes very angry ; and there may sometimes be temporary mania. It is impossible to say on what this behavior depends, or why it assumes such different aspects in different cases. Peo-

ple who are usually cheerful become lachrymose; mild people get angry; modest, retiring people get bold and shameless, and *vice versa*. The patient's character alternates from grave to gay, from lively to severe. The senses are rendered more acute; for example, the ticking of a watch seems like strokes of a sledge-hammer; the words that bystanders whisper gently are heard with amazing distinctness. Other senses are often affected in a similar way; but the sense of sight, as a rule, is affected in an exactly contrary manner: A cloud seems to come over the eyes, and prevents the objects around from being seen clearly; and at last things appear to be all jumbled up together. As a rule, consciousness remains intact during this first stage, and questions are answered correctly."—*Prof. R. Boehm*.

The duration of this stage of excitement is subject to no rule; but generally a few minutes suffices to change the scene. The talking, singing, praying, swearing, etc., are hushed; the muscles become relaxed and limp, the flush on the face vanishes, deep sleep is indicated by audible snoring, and we now enter upon the second stage.

2. *Stage of Anæsthesia*. "The stage of complete unconsciousness required for capital operations is now fast approaching. Violent tonic contractions of the muscles of the body often occur before complete unconsciousness and perfect muscular relaxation set in. The extremities become rigid, the muscles of the chest are firmly fixed, and the respiration thus becoming impeded, causes, in combination with the general violent muscular contraction, duskiness or lividity of the face. The eyes are injected or prominent, the lips blue, the jugulars stand out like large black cords, the mouth is clenched, and a profuse perspiration breaks out on the body, especially about the face. In a few seconds all these symptoms pass away. They may be accepted as a sure indication of the immediate approach of utter insensibility and complete flaccidity of the muscles, and as a warning that the administration must be conducted with increased caution, or the patient will suddenly pass into a stage of danger, with noisy, stertorous, quick, shallow breathing, and quick, weak pulse. These violent muscular contractions, which greatly distort the face, and frighten the patient's friends, rarely occur in women or children, or in men weakened by exhausting illness; and it is a condition more frequently seen when the Chloroform is administered too abundantly, and the patient brought too quickly under its influence. As these movements cease, the muscles become flaccid, and the stage of perfect insensibility is reached.

Reflex action is lost; the conjunctiva can be touched without producing winking. The limbs, when raised and let go, fall heavily. The breathing is calm, but a little superficial; the pulse is not much altered, but it may be a little more compressible. The face is moist with perspiration. The pupil is much contracted. This condition may be maintained with due precaution for a considerable time; but, if now the Chloroform is continued in undiminished quantity, the breathing becomes noisy and stertorous; the pupil greatly dilates; the pulse loses its strength; the breathing becomes more and more shallow, and less and less frequent, till both pulse and respiration stop. Even now, artificial respiration will often restore the breathing, bring back the pulse-beats at the wrist, and rescue the patient from the jaws of death. On several occasions, while administering Chloroform, I have witnessed recovery from this critical condition.

"On the other hand, it appears that sometimes, without warning, while the pulse is beating well and the breathing is deep and quiet, the heart suddenly stops, and respiration immediately ceases. This form of death arises probably from cardiac syncope, while the other form of death is probably due to gradual paralysis of the respiratory muscles from the effect of the Chloroform on the respiratory centers. Chloroform insensibility may with care be maintained for hours, and even days. In administering Chloroform, the attention should be directed to the state of the pulse, the breathing, the conjunctiva, and the pupil. The pulse usually retains throughout its frequency and force. Should it become quick and weak, or irregular, then the inhalation must be withheld, unless the frequency of the beats can be accounted for by the patient's struggles. The breathing often affords an earlier sign of danger than the state of the pulse. If the respiration becomes very shallow, and gradually less frequent, the Chloroform should be suspended for a time.

"The surest signs of safety, and the earliest of danger, are afforded by the state of the conjunctiva and pupil. While irritation of the conjunctiva causes reflex action, and is followed by blinking, there is usually no danger. The pupil is much contracted in the stages of insensibility when no danger is to be apprehended; but, on the approach of peril from over-dose of the anæsthetic, the pupil dilates.

"When, on touching the conjunctiva, reflex action is annulled, and the limbs, when raised, fall heavily, the patient is fit to undergo any operation. Vomiting happening after the complete Chloroformization, may be taken as a sign of returning conscious-

ness; and, if the operation is incomplete, the inhalation should at once be continued, when the vomiting will speedily cease. But, to avoid vomiting, it is advisable that the patient should take no food for three or four hours before Chloroformization."—*Ringer*.

The chief action of Chloroform is upon the brain and spinal centers. If the cerebrum is laid bare in animals subjected to its action, the brain shows very decided anæmia; and, in man, accidents have corroborated these experiments upon animals.

Profound Narcosis.—This is the stage of great danger; and its induction is uncalled for and unjustifiable. It is indicated by excessive muscular relaxation, complete abolition of reflex actions, and stertorous breathing; and death may occur very suddenly, "sometimes under the guise of syncope, sometimes taking the form of asphyxia. Herein lies the special risk of Chloroform, that danger comes before it is expected, and that what we call unfavorable or dangerous symptoms are generally the immediate forerunners of death. In fact, death treads on the heel of danger. Its near approach is known by a sudden stoppage of the pulse or breathing, a sudden paleness overspreading the face, cyanosis or duskiess of the lips and dilatation of the pupils, and sometimes sudden relaxation of the sphincters, the passage of urine or fæces, vomiting, a sudden stoppage of the flow of blood during an operation [or a sudden copious flow that causes fainting]. Violent, cramp-like muscular movements must also be regarded as an unfavorable symptom, which commonly ends with the patient dying suddenly. This is particularly likely to occur in those patients who have tipped freely, and in whom it is very difficult to induce narcosis."—*Prof. Boehm*.

When the inhalation is discontinued, the narcotized patient generally awakens suddenly, as from a deep sleep, in from one-half to three-quarters of an hour, without the faintest knowledge of what has befallen him in the interval. After a few minutes of confusion or delirium, the senses gradually return, often with vomiting.

Antidotal Treatment.—Death from Chloroform narcosis may often be averted by the prompt use of the following means: Place the body at an angle of forty degrees, with the head downward, so as to favor the passage of arterialized blood to the brain, especially if there is failure of the heart's action, with fainting. Often, catching the patient by the feet and holding him up with the head downward, will save his life. This is Nelaton's greatest remedy. The use of the alternate cold and hot douche. Artificial respira-

tion, alternated with Faradization of the diaphragm, by placing one pole firmly against the pit of the stomach, the other over the larynx and neck, has acted well. Be sure and keep the tongue well pulled forward. The vigorous use of dry heat, in an atmosphere of 82° F., or higher, is of great value. The introduction of a piece of ice into the rectum, at the same time smartly slapping the surface of the chest with a towel dipped in ice-water, has proved of signal service. Prof. Gross cures all his cases with this latter method. The introduction of oxygen gas, it seems to me, should be of great value. The cautious inhalation of Ether has proved useful. Inhalation of Ammonia, or the injection of this agent into the veins, should not be forgotten in extreme cases. Amyl nitrite, by inhalation and hypodermic injection, is now supposed to be our most useful remedial antidote.

Mode of Administration.—Never permit the administration of an anæsthetic in a sitting posture; the patient should always be *supine*; the neck and waist should be free from all constriction, and no solid food have been taken from eight to twelve hours previous. A little beef tea may be allowed, and a small sip of brandy is often useful just before the operation. No special form of inhaler is required. A simple cone of paper, large enough to cover the nose and mouth of the patient, with a sponge or napkin placed in it, is all that is necessary, or a towel or any porous material. One or two drachms may be poured on at first, and a few drops added from time to time to replace loss by evaporation. Protect the mouth and nose by inunctions of oil. It is now well known that neither conditions of extreme debility, nor organic disease of the heart, are contra-indications. It is more dangerous to the old than to the middle-aged or young; and old toppers are brought under its influence with considerable difficulty. Simpson applies Chloroform by dropping it slowly on a piece of thin cloth laid over the mouth and nose, which are first protected by oil. Chloroform has a density and weight four times those of air; and, when held over the mouth, the air is displaced, and it falls readily into the mouth and nose. The strength of the Chloroform vapor inhaled should not exceed 3½ per cent; and then no danger need be apprehended; but its administration may be proceeded with boldly, the patient taking full, deep inspirations, with the eyes closed.

Pneumogastric Nerve.—The functions of the vagi are slowly abolished, as shown by the disturbed respiration; and, in fatal cases of Chloroform narcosis, death is brought about by sudden

paralysis of the respiratory centers in the medulla oblongata. Dr. A. W. Smith "considers that a very common cause of the stoppage of breathing in Chloroform narcosis is to be found in the paresis (anæsthesia) of the terminations of the sensory nerves in the lungs, induced by Chloroform; these nerve-endings being concerned, in the normal state, in the regular performance of the respiratory movements. We can not deny that there is some foundation for this theory, when we recall to mind the results of Breur's experiments on the part played by the peripheral terminations of the vagus nerves in the act of respiration. Each inspiration causes an irritation of the sensory terminations of the vagus nerve by the very act of expansion of the lungs; this is carried by the centripetal vagus fibers to the center for expiration, and an expiratory movement is set up. By a similar mechanism, an inspiration is made to follow an expiration; so that, in a certain sense, the movements of respiration are automatic and self-regulating."

When death results from Chloroform narcosis, it is from asphyxia, but more generally by cardiac arrest and syncope. Dr. Kidd regards paralysis of the respiratory muscles, with spasm of the glottis, as the first step in death by Chloroform; engorgement of the pulmonary veins and the right side of the heart, as the second.

Heart.—Chloroform exerts a steady and constant depressing action upon the heart, and, when applied locally, in a concentrated form, *instantly destroys the contractile power of the heart-muscle*. In experiments on animals, "the movements of the heart become weaker, and the lateral pressure in the arterial system is lessened, not only on this account, but because the vaso-motor center in the spinal cord (or medulla oblongata) loses its irritability through the poison, and may even be perfectly paralyzed. The weakening of the activity of the heart does not depend upon any influence from the nerve centers, but is dependent rather on a direct alteration of the motorial power of the heart, which may be considered by some as due to a weakening of the automatic centers for movement in the heart itself (or the ganglia of the heart), or on direct weakening of the muscular fibers of the heart. These changes in the circulation are, it would seem from Scheinsson's experiments, also the cause of the decrease in the bodily temperature, and the retardation of the tissue changes in Chloroformed animals; and Lenz's experiments with the hæmodro-

mometer, in which the swiftness of the blood-current in the carotid artery sank to one-seventh of its normal value, also speak strongly of the diminished propulsive power of the heart from Chloroform."—*Prof. Boehm.*

Circulation.—The English Chloroform Committee "proved, that, after the first half-minute of the inhalation of Chloroform, there is a progressive lowering of the arterial pressure. It would, *a priori*, appear probable that this is to some extent due to a vaso-motor paralysis; but Sansom and Harley state that there is a spasm of the small vessels, which can be readily seen to occur in the web of a frog's foot during Chloroformization. Not until the third stage is reached, according to these authors, do the vessels relax into dilatation. If these observations be correct, Chloroform first stimulates and afterward depresses the vaso-motor centers."—*H. C. Wood.*

Blood.—Through the direct action of Chloroform upon the nerves, the blood-discs become contracted; and, if air comes in contact with the corpuscles, they rapidly disappear, dissolving in the serum, and hæmatin crystals form. These changes are probably due to oxidation. "According to Harley, blood, to which as little as 5 per cent of Chloroform has been added, becomes very liquid and of bright arterial hue. When Chloroform is added to fresh blood, and the mixture is allowed to stand for twenty-four hours, a marked increase takes place in the proportion of oxygen, and a lessening in that of Carbonic acid; and Bert has found that the oxygen of the blood undergoes, during anæsthesia, an increase, such as Harley has found to happen when Chloroform is added to blood outside of the body."—*Dr. H. C. Wood.*

Muscular System.—Through the motor nerves, Chloroform produces spasm and complete paralysis of the muscular system. In complete anæsthesia and narcosis, every muscle in the body is perfectly and completely paralyzed.

Eyes.—"Dr. Bandin called attention to the pupil as a guide in Chloroformization, stating that, although at first it is uniformly dilated, afterward it is uniformly and immovably contracted, and that this is the period for operating. Schlager is in accord with Dr. Bandin. In 120 out of 122 cases observed, the pupil was dilated during the first stage of excitement, and, during complete anæsthesia, narrowly contracted. He also states, that, if during anæsthesia the pupil returns to normal, more Chloroform is required; but, if it suddenly dilates, danger is imminent.

At present, however, the condition of the pupil can not be considered as an absolutely safe guide in anæsthetization."—*H. C. Wood.*

The sense of sight becomes confused, things "appear all jumbled up together," a cloud comes over the eyes, and soon vision is lost.

Therapeutic Individuality.

The great use of Chloroform is as an *anæsthetic*; i. e., to produce insensibility to pain in surgical operations involving intense pain,—as the reduction of dislocations and fractures, breaking up adhesions, and taxis in strangulated hernia,—and in many diseases accompanied by great pain. No known agent can equal Chloroform for this purpose, if the consideration of danger be left out. Ether is a trifle more safe, but not so convenient, for many reasons. The advantages of Chloroform may be thus summarily stated, according to Stille: 1. "A less quantity of Chloroform than of Ether is requisite to produce the anæsthetic effect. 2. Its action is more rapid and complete, and generally more persistent. 3. Its influence is far more agreeable. 4. Considering the quantity used, it is much less expensive. 5. Its perfume is more pleasant, and less adherent to the clothing. 6. It is much less inflammable, and may, therefore, be more safely employed at night."

Never administer Chloroform with the patient in a sitting posture, see that the neck is free from all constriction, and let no solid food be taken into the stomach for from six to twelve hours before the inhalation. Prof. G. A. Hall administers twenty drops of Chloroform internally, just before giving it by inhalation, to prevent nausea and vomiting. If these precautions are taken, my preference is greatly in favor of Chloroform over Ether. Dr. Syme has met with no accident in 8,000 administrations with these precautions.

Those that bear Chloroform the best are delicate, weakly people that have been reduced by disease, and women and children. The robust and healthy are far more exposed to the dangerous effects of this agent. The age of the individual does not seem to have any special influence. It must not be used where there is softening of the brain; severe organic heart disease, with intermittent pulse; aneurisms of the aorta; extreme weakness from hemorrhages; extreme anæmia; and great tendency to syncope. Anæsthetics should not be employed in cases which would prob-

ably require their use for a long time, because the inclination for this kind of intoxication grows rapidly, and is as difficult to control as the Opium habit.

Delirium tremens where excitement and violence predominate, is most remarkably controlled by this agent.

In convulsive affections of children. Not of much use in epilepsy, tetanus, hysteria, and insanity.

Headache, with dizziness; great sleepiness, yawning; comatose sleep; pressure in the brain and roaring in the ears.

Sick-headache, with excessive nausea and vomiting. (Internally.) Dr. G. A. Hall has used this agent internally for this disease with excellent results.

Photophobia is greatly relieved by the fumes of Chloroform.

Earache. A few drops on cotton often gives quick relief.

Digestive Organs.—In toothache from a hollow tooth, two drops on cotton will often relieve the pain with great rapidity.

In *neuralgias* of the external nerves, with excessive pain, the local and internal use of Chloroform is of untold value. The same with *visceralgia* located in the plexuses of the ganglionic nervous system in the abdominal cavity, such as gastralgia, enteralgia, hepatic and renal colic, etc. The inhalation of anæsthetics and the internal use of Chloroform have proved of signal service. Hiccough, of nervous form, is relieved at once by Chloroform.

In nausea and vomiting, sea-sickness or morning sickness, with much acidity of stomach, and great distention of stomach and bowels with gas, two to five drop doses often act like magic.

Hepatic Colic.—"Cholesteric gall-stones can always be dissolved away by large doses of Chloroform, especially if combined with Succinate of Iron. Give from ten drops to one teaspoonful every one to four hours, and one teaspoonful of the Succinate of Iron half an hour after each meal. Chloroform, on being swallowed, passes into the acini of the liver, then into the bile of the gall-bladder, where it dissolves the gall-stone with the inexorable certainty of mathematics."—Dr. T. H. Buckler.

Enteralgia, or colic, with intense suffering, and tympanitis; especially if accompanied by great restlessness from intense pain.

Strangulated Hernia can hardly be reduced without this anæsthetic.

Hæmorrhoids that are intensely painful, or with colic.

Involuntary stools of mucus and blood, with great tenesmus.

Renal Organs.—Bladder irritable, or paralysis of the sphincter vesicæ.

Dr. A. W. Woodward cured one case of complete paralysis of the sphincter vesicæ following labor by ten-drop doses.

Renal Colic. During the passage of the calculi, administer by inhalation, or in teaspoonful doses every hour until relieved.

Sexual Organs, Male.—Great prostration and relaxation of these organs. In acute orchitis, if Chloroform be applied locally to the scrotum once in three hours, it will often abort the disease.

Sexual Organs, Female.—Chloroform has here one of its centers of greatest usefulness. *Neurosis* of these organs often finds its remedy in this anæsthetic. For *ovarialgia*, *dysmenorrhœa*, *fibroid growths*, *pelvic abscess*, and *phantom tumors*, the importance of full anæsthesia can hardly be over-estimated.

Obstetric Practice.—To the obstetrician, anæsthetics are of the highest value. Uterine sensibility is completely effaced, like all other pains, by the vapors of Chloroform. "Women who inhale anæsthetics continue to have abdominal and uterine contractions, though plunged in the sleep of anæsthesia, and often are awakened after the child is expelled, by the noise of its crying; yet the contractions of the uterus and the abdominal muscles may be notably modified in certain cases under the influence of anæsthetics. They may be weakened, or even suspended, when anæsthesia becomes profound. [In many women, I have seen labor entirely cease from even partial anæsthesia; but these are the exception.] If it be superficial and well managed, the contractions of the womb and the abdominal muscles persist with their ordinary energy; but, if too much is given, the labor will be entirely suspended."—*Prof. A. Trousseau.*

There is not the least danger to mother or child from the use of anæsthetics, if used as they should be; viz.: The interval between the pains should be watched; thirty seconds before the pain is anticipated inhalation should be commenced, and continued until the pain is half over, when the Chloroform should be withheld, until near the approach of the next pain. Complete anæsthesia should never be produced except in cases requiring surgical interference. There is not a case on record where these agents have produced death, or caused a moment's anxiety in regard to the woman's life. It is not necessary to produce complete unconsciousness, only to give sufficient Chloroform to dull the pains. With complete anæsthesia, the pains may cease; but you will be compensated by greater relaxation of the parts. When *instruments* are used, or turning is performed, full anæsthe-

sia is invaluable. The same in *abortion*, to extract the placenta. Chloroform narcosis will enable the physician to completely and speedily remove it with the hand without danger to the mother. This has been my practice for years, and I never have to resort to instruments.

Puerperal Convulsions from *uræmia* or *reflex irritation*. The use of Chloroform has cured very many cases, and no one remedy excels this agent in this fatal malady. If the spasms are due to cerebral *hemorrhage*, this agent should not be used.

In *ovariotomy* and all extremely painful *gynæcological* operations, the use of anæsthetics is imperative.

Respiratory Organs.—In neuroses of the respiratory organs, as *laryngismus stridulus*, *asthma*, and *pertussis*, great relief is often obtained by the use of Chloroform, both internally and by inhalation.

In dry, hard, spasmodic, irritable cough, two to five drops of Chloroform taken in glycerine every one, two, or three hours, acts like a charm.

In intercostal neuralgia, pleurodynia, and myalgia with frequent stitching pains, Dr. G. A. Hall applies Chloroform locally, with fine results.

Internal Use.—The best way to give Chloroform internally is to dissolve it in glycerine (one to three); or it may be given in an emulsion of the yolk of an egg, honey, treacle, and water, or alcohol. From one drop to sixty may be given internally, without fear of danger. A dose of seventy-five drops acts as a soporific, blunts the general sensibility, as well as the special senses, produces drowsiness, and reduces the pulse two beats in a minute.

Caution.—Chloroform should never be administered without the presence of a third party. This is peculiarly applicable in the case of females; as such patients have sometimes made charges against the physician of illicit and improper treatment. This is due to a peculiar hallucination caused by the influence of Chloroform upon the sexual organs.

Local Application.—When its evaporation is prevented, it acts as an irritant, promptly vesicating the skin. By the use of a watch-glass, this can be done nicely.

Chloroform greatly facilitates the absorption of medicines by the skin; hence its great value as a liniment when mixed with Olive oil, Aconite, Camphor, etc. See "Liniments," page 31.

CIMICIFUGA RACEMOSA.

Black Cohosh.

Habitat: America, etc. Tincture of the fresh root; Class III.

Antidotes.—Acon., Bry., Gels., Puls., Cham., Camph., Bell.

Through the cerebro-spinal nervous system, Cimicifuga has three special centers of action :

- I. CER.-SPINAL S. *Rheumatic Hyperæmia, Chorea, Paralysis.*
- II. CIRC'N. *Febrile Irritation. Heart Irregular, Feeble.*
- III. SEXUAL O., FEM. *Rheumatic Hyperæsthesia. Excito-Motor.*

Cerebro-Spinal Nervous System.—The action of this remedy upon the cerebro-spinal system is that of a rheumatic irritant, producing *erethistic hyperæmia* of the brain, spinal cord, and, through this, of the whole muscular system; and this is its grand pathological effect. The irritative hyperæmia of the brain, especially at its base, is strongly marked, as shown by the severe headache, marked vertigo, delirium, brain feeling too large for the cranium; dimness of vision, and the persistent and intense aching pains in the eyeballs.

Spine.—It seems to affect the whole cord, as shown by its action upon both the nerves of motion and sensation.

Nerves of Motion.—Through the motor nerves, this remedy acts as a depressing irritant, as shown by the nervous tremors resembling chorea, which are followed by paralysis: Dr. T. C. Miller says: "Fifteen years' observation and experience have proved this agent to be one of the most remarkable in all diseases of the ganglio-spinal system, particularly when the motor side is excited, and yet, on the whole, there prevails an atony in the muscular and nervous system."

Nerves of Sensation.—Neuralgia, or myalgia, is the most prominent symptom of this drug. Dr. E. M. Hale says: "It causes a pure *neuralgia*, and what the older authors called *neuralgic rheumatism*. The *neuralgia* is not confined to any particular set of nerves, as is the case with some remedies. Its depressing, irritant action seems to be universal. The pains are aching, pressing,

remitting, and are attended with great restlessness, and a weak, exhausted feeling. It seems to affect the sensory nerves of the *left* side most."

It also produces rheumatic myositis very prominently; affecting particularly the belly of the muscle.

Ovario-Uterine System.—Upon these organs, this remedy has a powerful action, producing rheumatic hyperæsthesia of intense severity, with hysteria; dysmenorrhœa; and it is said to even produce abortion.

Therapeutic Individuality.

Nervous and muscular irritation, of a rheumatic, neuralgic, or gouty origin; especially in delicate, hysterical females, who are more or less afflicted with ovario-uterine disease.

Hysterical hyperæsthesia of a rheumatic character is the leading indication.

Neuralgic, rheumatic dysmenorrhœa, with much despondency; sleeplessness, and very sensitive.

During the menses, severe pain in the back, through the hips, and down the thighs, with intermittent, labor-like pains; weeping mood, and hysteric spasms.

Between the menses, neuralgic pains, with much debility.

Neuralgic, rheumatic after-pains, with great despondency, and sleeplessness.

Suppression of the lochia, with great despondency, uterine cramps, and tendency to convulsions.

Tendency to habitual abortion, in rheumatic subjects.

Sexual Organs, Female.—Prolapsus uteri, with sinking at the pit of the stomach, and profound melancholy.

Ovarian neuralgia, where the pains change their place often, with profound melancholy; menorrhagia; dysmenorrhœa.

In puerperal mania, and hypochondriasis, where the melancholy is most marked and profound, no remedy has given better results.

Rheumatic, irritable uterus, with intermittent spasmodic pains, and leucorrhœa.

Mammary pains, especially at the climacteric, of a burning nature, worse on left side.

Affects both the sentient and motor nerves of the uterus, as shown by the painful after-pains, etc.

Head.—*Melancholia* is one of the leading indications for this remedy; and it is caused by "a central hyperæsthesia of the general sensory nerve centers; and with this excitability, we find nearly always a suppression of all muscular action. It may well be called the pain of the soul, 'the mania of sorrow.'"—*Dr. Talcott.*

Desire for solitude, with suicidal tendency, and irritability.

Obstinate insomnia; imagining strange objects in the room, on the bed, etc., with dilated pupils and tremor of the limbs.

Pains in every portion of the head, but more in the vertex and occiput; often extending to the shoulders and down the spine; of a pressing and throbbing nature, accompanied with delirium.

"Sensation as if the top of the head would fly off, with a feeling as if the cerebrum was too large for the skull; pressing outward and upward."

"Remarkable heat in the back of the head, often extending down the back, during convulsions, and complaint of great soreness in the muscles of the neck and shoulders, after the convulsions."—*Dr. S. H. Talcott.*

Headache of drunkards and students.

"I don't know what is the matter with my head; I don't feel like myself,' with bluish hue of the face."—*Dr. Rotch.*

"All the pains of the head are from within outward."—*Hale.*

Eyes.—Intense and persistent pain in the eyeballs.

"Nearly all the pains in the head extend to the eyeballs; they are aggravated by movement, relieved by the open air; attended by faintness, and sinking at the pit of the stomach."—*Hale.*

Fixed pain in the center of the eyeball; hyperæsthesia, without redness of the eyeball; ciliary neuralgia.

Ocular hyperæsthesia in rheumatic subjects.

Digestive Organs.—Nausea and vomiting, due to cerebral sympathetic irritation.

Dry pharynx, with dysphagia and frequent inclination to swallow. Sinking sensation at the epigastrium, with faintness.

Neuralgic pains in the abdomen (uterine diseases).

Urine pale and abundant; in hysteria.

Weakness, trembling, and spasmodic action of the muscles, as shown in choreic affections.

"Chorea of the heart; tumultuous, irregular, unexpected, and strange motions of the heart; aggravated by emotions, and subdued by sleep."—*Hale.*

Pleurodynia and intercostal rheumatism.

Reflex laryngeal and bronchial cough from uterine irritation, of a dry, spasmodic character.

Excessive muscular soreness in all the limbs.

Violent aching pains in the small of the back.

Soreness of all the muscles of the spine, especially in the cervical region.

Aggravation.—Morning; motion, cold air, and during the menses.

Amelioration.—From rest; open warm air, and warmth in general.

CINA.

Worm-seed.

Habitat: Asia, etc Tincture of the dried flowers, Class IV.

Antidotes.—Cinch., Camph., Hyosc., Bry., Ipec.

Through the cerebro-spinal nervous system, Cina (especially its Alkaloid, Santonine) has four special centers of action:

- I. CEREbro-SPINAL SYSTEM. *Convulsions and Coma.*
- II. EYES. *Mydriasis; Xanthopsia; Hyperæsthesia.*
- III. DIGESTIVE ORGANS. *Hyperæmia; Irritation. Parasiticide.*
- IV. KIDNEYS. *Hyperæmia; Hemorrhage; Sphincter Paresis.*

Cerebro-Spinal System.—"A healthy child took two grains of Santonine, and in a quarter of an hour it was seized with convulsions; and within one hour it lay unconscious, with a hot head and congested face, the eyes twitching convulsively, the pupils largely dilated and insensible, the mouth foaming, the teeth clenched, the breathing stertorous, and the upper limbs occasionally jerking. On the morrow recovery was complete."—*Stille.*

Upon the brain and anterior portion of the spinal cord, the action of Santonine is very marked, as shown in cases of poisoning, by the "great pallor of surface, with a blue color around the eyes or involving the whole countenance, which has been generally an early symptom; vomiting has not rarely been present, and

sometimes has been accompanied by colicky pains. Besides these manifestations, giddiness, mental apathy or stupor, great coldness of the surface, profuse sweating, trembling, mydriasis, and finally loss of consciousness, with convulsions, often violent, accompanied by opisthotonos and emprostotonos, and failure of respiration, are the usual phenomena of Santonine-poisoning."—*H. C. Wood, M. D.*

Large doses in dogs and rabbits produce "accelerated breathing, slowing of the pulse, universal trembling, cramps, free salivation, unconsciousness, convulsions, dilated pupils, and death. After death, the lesions are hyperæmia of the nerve centers; congestion of the lungs and heart; spinal marrow and investing membrane greatly engorged with blood."—*Wood.*

Eyes—A prominent symptom of Santonine upon the eyes is *xanthopsia* or "yellow seeing." "Usually it consists of a very deep yellow tint imparted to the landscape and to every object looked at, an effect perhaps most comparable to that of looking through yellow glass. Sometimes this yellow is replaced by green; and Heydloff states that he has seen patients in whom the tint was red, and others in whom it was blue. Rose believes that the chromatopsia is due to a peculiar action of the drug upon the nerve centers; but it seems to me more probable that it is simply the result of a very faint staining of the humors and other parts of the eye by the drug, and is analogous to the similar phenomenon sometimes seen in jaundice."—*Wood.*

Dr. Rose and Dr. Ogston find that Santonine always produces hyperæmia of the retina, and believe the chromatopsia is owing to its influence either on the retina or brain; for it does not color the structure of the eye. Drs. Ogston and Brown assert that Santonine produced cataract in the eyes of young kittens, but would not in adult cats. In nine cases of cataract the drug cured four.

It produces great dilatation of the pupils.

A child took five grains of Santonic acid. It became amaurotic, and did not recover its sight for two months.

Santonine has proved of great value in nervous deficiency, atrophy of the nervous element of the eye, hyperæsthesia of the retina, amaurosis, and choroiditis.

Olfactory Nerve.—Upon this nerve, it also has a decided effect, as shown by hallucination of smell. The sense of taste is also perverted in some cases.

Digestive Organs.—Through the vagi, large doses of Santonine produce gastric oppression, great thirst, nausea, vomiting, colic, and profuse diarrhœa, bloated abdomen, and yellow complexion. In the gastro-intestinal canal, Cina, and especially Santonine, has a double action; first, causing hyperæmia and diarrhœa, and, second, destroying the life of almost every species of intestinal worms, but especially *lumbrici*. Bouchut relates that a single dose of two grains, in a child two years old, caused the evacuation during one day of one hundred and sixty-six lumbricoid worms. Kuchenmeister found that Santonine and Castor oil, mixed with albumen, killed ascarides in ten minutes, while without the oil the Santonine had no effect. Injected into the rectum with the oil, it will destroy these thread-worms. Upon the tape-worm this drug seems to have but little or no effect.

Renal Organs.—Upon the urinary organs, Santonine has a decided action, increasing the flow of urine, and augmenting the elimination of urea. The discoloration of the urine is very marked. At first it has an orange tint; but large doses produce a saffron-like or purplish-red color, in some cases like blood. Toxic doses have produced hæmaturia. Giovanni cites a case of a child six years of age, who took six grains of Santonine, which caused her to pass bloody urine; and death took place from continuous hemorrhage. Dr. Page gives us a case of poisoning with this drug, with involuntary urination during sleep. Its action, through the sacral plexus, upon the *sphincter vesicæ*, is very great, producing paresis, as shown by the enuresis. The difficulty of holding the water at night is a leading symptom of Santonine.

Therapeutic Individuality.

This remedy is especially adapted to children troubled with worms, and is absolutely specific for lumbricoides, subduing all the constitutional symptoms caused by these parasites. I always use the first two triturations of Santonine instead of the Cina. Children that are exceedingly unamiable, nothing pleases them, they will not lie awake five minutes without crying, must be carried or rocked constantly day and night.

Head.—Vertigo with faintness, worse on rising up. Frontal headache, increased by reflexion, as much externally as internally; the pain is stupefying.

"Exceedingly unamiable. Nothing pleases the child."—G.

Pressing pains internally in the eyes, with dilated pupils. The blue margins around the eyes indicate abdominal disease.

Pressure as from a heavy weight, as if the brain were pressed down in the middle of the vertex; pressure increases and renews the pain.

Constantly picking and boring or rubbing at the nose.

Grinding of the teeth and tossing about during sleep; always cross and fretful when awake.

Eyes.—Optical illusions; everything looks yellow (xanthopsia).

Pupils dilated; with brain symptoms, and amaurosis.

Hyperæsthesia of the retina, with atrophy. (Santonine.)

Digestive Organs.—Tongue red on the edges, with large papillæ; or coated brown or yellow. Great hunger soon after eating.

Frequent motion as if swallowing something.

Sensation as if a ball were rising in the throat, which causes frequent inclination to swallow.

Desires many things, but refuses them when offered.

Great hunger immediately after eating.

Qualmishness, with vomiting of mucus and lumbrici.

Belly hard and distended, with boring, twisting pains about the navel, and mucous stools.

Stools mixed with lumbrici.

Itching of the anus, especially at night, with restlessness.

The anthelmintic power of Cina, and especially its Alkaloid, Santonine,—both acting as *parasitocides*, directly destroying the worms,—is also aided by its power as a restorative stimulant, by which the habitat of the parasites is rendered unfit to support life, so that they lose their hold and die. The mucous membrane is in an unhealthy state, secreting much tenacious mucus, which forms a favoring nidus for the development of worms. This condition is generally found in scrofulous children, who are unhealthy and anæmic. One or two grains of the first decimal of Santonine given three times a day, will cure about every case of lumbricoides in from two days to a week. For ascarides, it should be mixed with oil or lard, and injected into the rectum every night for twelve nights.

Urinary Organs.—Enuresis nocturna, from worms. In children that are troubled with worms, and have great difficulty in holding their water at night, or wet the bed every night, Santonine will act like a charm.

"The urine turns milky after standing a little."—*G.*

Saffron-colored urine; becomes turbid in a few minutes.

Hæmaturia in children, from nephritis.

Respiratory Organs.—Hoarse, gagging, croupy cough, similar to that of croup, caused by worms, will be arrested at once with Santonine. This croupy cough will last for months, then be arrested immediately by Santonine.

"The symptoms of the respiratory organs indicate a catarrhal affection of a light grade, with great nervous excitement involving the whole cerebro-spinal system, similar to that of whooping-cough."—*D.*

"The preponderance of the nervous over the local affection indicates the role which Cina plays in whooping-cough and in spasmodic asthma."—*D.*

Cerebro-Spinal System.—Convulsions with consciousness; even if epileptic, they are conscious.

Many cases of fever are kept up for days, that will be cured at once with Santonine.

Spasmodic affection of the larynx and respiratory muscles in children with helminthiasis.

For intermittent fever, mild cases, light chill, good deal of fever, with vomiting of food, and colicky pains in children afflicted with worms, use Santonine.

Urticaria from irritation of the abdominal cavity.

In chorea in children afflicted with worms, Santonine acts like a charm.

Aggravation.—At night, when pressed upon, the pain is aggravated in children with worms; when looked at, and when crossed in the least.

Amelioration.—During the day; from cold and motion.

CINCHONA.

Peruvian Bark.

Habitat: South America, etc. Tincture of the dried bark, Class IV.

Antidotes.—Natr. mur., Ars., Sulph., Carb. veg., Ferrum, Ipec., Puls., Camph.

Through the cerebro-spinal nervous system, Cinchona and its Alkaloids have eighteen special centers of action:

- I. BRAIN. *Intense Hyperæmia; Bursting Headache; Coma.*
- II. AUDITORY N. *Paralysis; Singing, Buzzing, Deafness.*
- III. EYES. *Mydriasis; Amaurosis.*
- IV. TRIGEMINUS. *Hyperæsthesia; Neuralgia.*
- V. SPINE. (MOTOR PORTION.) *Convulsions; Paralysis.*
- VI. VAGI. *Tonic. Paresis; Slow Digestion.*
- VII. LUNGS. *Venous Congestion; Dyspnœa; Anæmia.*
- VIII. SPLEEN. *Venous Hyperæmia; Hypertrophy; Hydræmia.*
- IX. LIVER. *Paresis; Chronic Congestion; Jaundice.*
- X. KIDNEYS. *Urea and Uric Acid Greatly Diminished.*
- XI. SEXUAL O., MALE. *Debility; Exhausting Pollutions; Imp.*
- XII. SEXUAL O., FEMALE. *Sex. Excitement; Cop. Hemorrhage.*
- XIII. MUSCULAR S. *Anæmia; Paresis; Intermittent Myalgia.*
- XIV. SKIN. *Acne; Hydræmia; Anasarca.*
- XV. BLOOD. *Anæmia; White Corp's Dest'd; Fibrine Increased.*
- XVI. CIRC'N. *Tonic. Cardiac and Vaso-Motor Paralysis.*
- XVII. TEMPERATURE. *Febrile Temperature Greatly Lowered.*
- XVIII. ANTISEPTIC. *Arrests Fermentation with Great Rapidity.*

Brain.—The effects of this remedy are especially centered upon the base of the brain, affecting particularly the *corpora striata*, *optic thalami* and *corpora quadrigemina*. From the irritation and prostration of these organs, we have intense congestion, bordering upon inflammation of the brain. Yet, I do not believe that genuine acute inflammation of the brain can be produced in man by toxic doses of Cinchona or its Alkaloid; though the hyperæmia is intense, as shown by the deafness, blindness, delirium,

coma, convulsions, excessive vertigo, slow respiration, feeble pulse, and collapse unto death.

"Giddiness and buzzing in the ears, are the most common effects of this medicine; but the confusion of sight and faintness which accompany them cease as soon as the patient lies down. They are apt to occur for several days whenever the erect posture is assumed. In the higher degrees of Cinchonism, the patient sometimes *reels* as if intoxicated, and presents the appearance characteristic of the invasion of low fevers. In a few cases of nervous and excitable persons, *delirium* has been observed,—sometimes of a gay or noisy description, like the excitement produced by alcohol; but less frequently it accompanies a dreamy, dull, and listless condition. In a few instances, *convulsions* have occurred, either when the dose was too large, or when it was given to a person affected with cerebral disease. Finally, when an overdose is taken, a state of debility may ensue which gradually deepens into *collapse*.

"The minimum fatal dose of Quinine is not known, but is large, and varies much, probably because the intestinal glands do not absorb it all. Dr. Clapton gives a case, in which a soldier took an ounce of the Sulphate, stirred up in some water, that only produced delirium and stupor. In the famous case of Bazire, five ounces taken in the course of ten days caused death.

"In large doses, Quinia without doubt abolishes the function of the cerebrum. Dr. Jakoubowich says, that when given to young pups in doses of from one to fifteen grains, Quinia produces violent but short epileptiform convulsions, followed by sleep, either comatose or delirious."—*Dr. H. C. Wood.*

Auditory Nerve.—The action here is specific and powerful, as shown by the various sounds in the ears, as singing, roaring, hissing, buzzing. Hardness of hearing, and in many instances positive deafness, has been produced by large doses of Quinine.

Stille says: "The deafness, although sometimes very great, and even complete, is alleged never to be permanent; but this rule is not absolute, as will hereafter be shown, at least in regard to excessive long-continued doses of the medicine."

Eyes.—Through its action upon the corpora quadrigemina, we have dilatation of the pupil, and sometimes complete blindness. "The eye is morbidly sensitive, and experiences a feeling of tension; vision is subsequently clouded, objects appear double or unnaturally small. Finally, very large doses may produce

blindness. In that case, the pupils are largely dilated. This amaurosis seldom lasts longer than a day or two; but Briquet mentions a case in which it did not cease for a month."—*Stille*.

or Trifacial nerve
The Trigeminal.—Upon the fifth pair of nerves, Cinchona and its Alkaloid have a specific action; producing hyperæsthesia and severe neuralgia, especially centering upon the supra-orbital branch.

It also produces hyperæsthesia of the facial nerve.

Pneumogastric.—Upon this nerve, with its various branches, China and its Alkaloid have a special and profound action.

First, the digestive organs. Here its action is shown by the putrid, bitter taste; white-coated tongue, canine hunger or complete loss of appetite; violent thirst, sour eructations, nausea, and vomiting of acid food, or bitter, bilious vomiting; slow digestion, with much flatulence and gastralgia.

Dr. H. C. Wood says: "Upon the stomach and intestines, Quinine acts very much as a simple bitter. In moderate doses, it stimulates digestion and increases the appetite; in large doses, it not unfrequently causes nausea and vomiting. When there is any morbid irritability of the mucous membrane of the stomach or bowels, its irritant action is often very marked, and its continued use in large doses has been known to cause gastritis."

Stille says: "Small doses have a tendency to produce constipation, while large quantities very generally occasion diarrhœa."

From portal congestion, we have copious watery diarrhœa.

Spleen.—Through the filaments of the vagi, Quinine has a marked influence on the spleen. Large doses of Quinine first diminish the size of the spleen, by its action upon the muscular fibers of the veins that this organ is so abundantly supplied with. The effect of organic reaction, or secondary effect, is an excessive supply of blood, producing enlargement and chronic hypertrophy of this organ; hence its great utility in enlargement of the spleen following intermittent fever. Dr. Jerusalimsky believes the contraction to be caused chiefly by an action on the peripheral splenic nerves and muscles. Drs. Smith and Piorry believe that large doses of Quinine will produce immediate contraction and lessening of the spleen; but Drs. Stille, Wood, and others claim that this has not been confirmed, and teach that it is highly improbable. But we know that Cinchonism will produce chronic hypertrophy of the spleen.

The nervous life of the Malpighian bodies of the spleen is destroyed through Cinchona's action on the right pneumogastric nerve and semilunar ganglia, and their catalytic blood-making functions are lost. This is one cause of the anæmia we see in those who are suffering from Cinchonism.

Lungs.—It produces congestion, with hæmoptysis; dyspnœa; anæmia and great debility.

Dr. Stille says: "That the lungs are embarrassed in their functions, but probably through the nerves more than the circulatory system, is proved by observation. It is not unusual for persons under the influence of large doses, to complain of tightness and oppression of the præcordia, while the face grows pale and wears a look of distress. Sometimes, indeed, there is severe dyspnœa, and a sibilant rhonchus is heard in the lungs. Yet, there is no reason to believe that this interference with respiration predisposes the lungs to become engorged or inflamed." This is a practical hint; for, in acute congestion and inflammation, this remedy is of no real use; but, in passive congestion and anæmia, Cinchona is of great value.

Liver.—We now come to that part of the organism wherein lies the most useful sphere of Cinchona and its Alkaloid, the Sulphate of Quinine. Just how it acts upon this organ is still somewhat of a mystery. The action of Cinchona, and especially its Alkaloid, is to produce complete prostration of the nervous centers, and, through them (by means of their nervous connection), of the tissues in conjunction with them. In this case, through the pneumogastric, and vaso-motor nerves of the hepatic cells, we have paresis and long-lasting congestion of the liver, with its many symptoms.

One of the most prominent of these symptoms is *jaundice*. Jaundice is not a disease, but a symptom, and is produced in the following way:

The bile already secreted, is reabsorbed, and stagnates in the hepatic cells and bile-ducts, in consequence of paralysis, or a mechanical impediment to its excretion. It is then carried into the blood by means of the veins and lymphatics.

Dr. Frericks says jaundice is produced in the following manner: "Whatever view we accept as to the mode of separation of the substance secreted by the liver, still it is certain that an increased absorption of bile into the blood may be dependent upon a difference of tension of the contents of the hepatic and

blood vessels. Such a condition may arise in two ways: (1) From obstruction of the bile-ducts, by which the pressure on the side of the cell-contents is increased; and (2) from obstruction to the flow of blood in the portal system, and consequent diminution of the pressure of this fluid on the sides. The former mode of production is the more common, and is the only one which as yet has been investigated. All mechanical obstructions which interfere with or arrest the flow of bile into the larger or smaller biliary ducts, produce jaundice in this way."

The investigations of Claude Bernard have proven that "irritating causes which stimulate certain parts of the nervous system—such as punctures in certain regions of the medulla oblongata, and electric stimulation of the proximal extremities of the divided pneumogastric nerves, and injuries which reduce the nervous energy of the individual, such as contusions of the head, poisoning with curare, etherization, etc.—give rise to congestion of the liver, while division of the spinal cord below the cervical plexus is followed by an opposite result."

This explains to us why Quinine is so useful in congestions of the liver; for its great action is upon that part of the brain and cord that has control over the functions of the liver through the vagi.

All authors writing upon Cinchona and its Alkaloid, claim that it acts through the ganglionic nervous system. I claim a different action for this drug. All its action is similar to that of narcotics; and all of its symptoms go to show that Quinine's great central action is upon the animal nervous centers in the base of the brain, and that through these centers its action is controlled. I am well aware that it does have a profound action upon the solar plexus. But the solar plexus derives its life from the cerebro-spinal nervous system; consequently it is the highest officer under the control of the cerebral centers. It is now a settled fact, that the filaments of the pneumogastric are copiously blended and joined in with the solar plexus, extending with the fibers of the solar plexus throughout its ramifications in the intestinal cavity; and that the pneumogastric is the *motor nerve* of the intestinal tract, and governs the vermicular action of the intestines.

By means of a telegraphic instrument in his room, Vanderbilt, during his long illness, had as complete supervision over all that was done on the New York Central Railroad as though he had been over the road once a day; and yet he was never out of his room. Just so with Cinchona and its Alkaloid. The cerebral centers in the base of the brain are its grand starting-point

and center of action; this center is King, and the solar plexus is the most prominent Governor under his control. This is done through the motor nerves and back through the sensory. Its great action, then, upon the liver is to produce *debility* of the vaso-motor nerves of the hepatic cells, paralyzing their functions, thereby producing long-lasting congestion of the liver, with its great train of symptoms.

Upon the biliary ducts, I believe, Cinchona has a special action. Dr. Thayer, of Boston, says it is a specific for the expulsion and radical cure of gall-stones. From this, it not only affects the muscular tissue so as to produce contractions of the neck of the gall-bladder and larger biliary ducts, but increases and changes the biliary secretions, so as to prevent their formation.

Urinary Organs.—Through the vascular system, Cinchona and its Alkaloid have a marked action upon the urinary organs, greatly diminishing the uric acid. Dr. Ranke tried it in three individuals in health, and found, that, under the influence of Quinia, the uric acid was diminished nearly one-half. Dr. Hammond made a series of observations during an attack of intermittent fever, where, as in all fevers, the amount of uric acid is always greatly increased. He found in this case the quantity promptly reduced more than one-half by the action of Quinia.

Dr. G. Kerner says: "When about nine grains of Quinia were taken in divided doses during the course of the day, the urea was decreased not quite one-eighth; the *uric acid* to a little less than *one-half*; the kreatinine was slightly increased, and the nitrogenous material decreased about one-ninth. When a very large dose (thirty-eight grains) was taken in the morning, the urea and the kreatinine were each decreased about one-fourth, as was also the collective nitrogenous material; the phosphoric acid was lessened about one-fifth, and the *uric acid* about *four-fifths*. Zuntz found that twenty-five grains of Quinia reduced his elimination of urea nearly forty per cent. Experiments upon dogs have confirmed this decrease in the elimination of urea."

"Dr. Cachere relates two cases, in one of which a boy of thirteen took ten grains of Quinia in three doses, and profuse hemorrhage took place from the urinary passages. Subsequently an infusion of Cinchona produced the same effect in a girl aged seven."—*Stille*.

Dr. J. M. Fothergill states that in some old subjects Quinia produces so much vesical irritation as to forbid its employment.

It also causes the urine to deposit a whitish sediment as well as the phosphates. Quinia may be easily detected in the urine. The solution employed by Bryant for this purpose contained, to two parts of iodine, eight of iodide of potassium, and two hundred and fifty of water. He found the action of the test to correspond closely with the observable effects of the medicine upon the nervous system. After the exhibition of eight grains of Quinia in one dose, a precipitate sometimes appeared in half an hour, though more frequently at the end of two hours. The length of time, therefore, before the appearance of Quinia, is invariably proportionate to the quantity taken, and the same rule holds in relation to the period during which the effects are felt.

Another fact shown by the same experimenter, is that the quantity of salt eliminated, is directly proportionate to that introduced. A third, also highly interesting, is that the elimination always ceases after a short time, generally little exceeding that during which the effects of Quinia persist. Thus, after a single dose of about three grains, the Quinia disappeared from the urine in from twenty to twenty-four hours; after thirty grains taken during twelve hours, in about forty hours; and after large doses, taken for several days, in from sixty to eighty hours.

This most beautifully illustrates to us that the action of Quinia is not through any chemical combination with the tissues, but that it is through its spiritual, medicinal (dynamic) principle acting upon the vital organs.

"Its removal, according to the researches of Binz, goes on slowly; for it is stated that in six experiments only a little more than two-thirds of the ingested quantity was excreted in the first forty-eight hours. Further, DeRenzi has found it in the urine seven days after the ingestion of the last dose. Dr. L. Thau, however, in three experiments, out of 4.4586 grammes of the Alkaloid which were given, recovered from the urine passed during the forty-eight hours 4.3 grammes, so that only 0.1586 gramme remained unaccounted for. A portion of this residue was perhaps lost in the chemical operations. But it is probable that some of the Quinia is eliminated through other channels than the kidneys; since Prof. Binz has found it in the saliva of a poisoned dog, and Landeur states that he has detected it in the urine, sweat, tears, and milk of nursing women, and in the serum of dropsical effusions. Dr. G. Kerner has found that Quinia as excreted is in an amorphous, uncrystallizable form. He also has discovered in the urine of persons taking Quinine a peculiar substance, sometimes amorphous, sometimes in acicular, prismatic

crystal, free from bitter taste, possessing the Quinia inflorescence, which he believes to be a derivative formed in the body from the ingested Alkaloid."—*Dr. H. C. Wood.*

Sexual Organs.—The specific and powerful action Cinchona has upon the organs of special sense located in the base of the brain, shows us at once why this remedy is so useful in diseases of the generative organs. Cinchona affects the whole nervous life of the cerebellum, debilitating and prostrating its functions, and consequently affects, through the animal nervous system, the sexual functions. The regulation of the motor functions is presided over and controlled by the cerebellum; and the debility of this cerebral center, so prominently produced by Cinchona, explains its great and useful action upon the sexual organs; for it is in diseases where debility of the motor nervous system is so prominent, that the use of Cinchona is especially called for.

Sexual Organs, Male.—Debilitating nocturnal emissions. Impotence from long-continued seminal losses, with sexual dreams, and complete prostration of the whole animal and muscular system, from undue sexual excitement.

Sexual Organs, Female.—*Dr. Wood* says: "At present, it seems established that Quinia in full doses (ten to twenty grains) is a very powerful stimulant to the uterine contractions during labor. The pains it produces so exactly simulate the natural ones as to indicate that they are not so much caused by a specific action of the drug as by its arousing the general nervous forces of the system. Be this as it may, most of the leading accoucheurs of this city [Philadelphia] and of New York are accustomed to rely upon Quinia in cases of uterine inertia from exhaustion."

Dr. Monteverdi says, "that Quinia is a uterine stimulant, causing at times in the gravid womb contractions sufficiently violent to induce abortion, and, when given during labor, intensifying greatly the uterine pains, and after labor causing rapid expulsion of the placenta, and arresting uterine hemorrhage; affirming, further, that, in amenorrhœa or in menorrhagia from uterine inertia, its action is no less marked. Many regard the use of Quinine as dangerous and even criminal in any disease in pregnant women. The belief of these persons is that this substance exercises a direct influence upon the uterus, causing powerful contractions and expulsion of the fœtus." The oxytocic power of Quinia, as claimed by many, I do not believe in. When abortion occurs while the patient is under the influence of Quinia, it is from other causes, and not the direct effect of this drug.

Cinchona excites the ovario-uterine functions so as to produce copious uterine hemorrhages. The menses are too early, copious, with black clots; followed by a watery leucorrhœa and much debility. Dr. Phillips says that all the Alkaloids of Cinchona cause sexual excitement. Hahnemann and several of Joerg's provers all claim the same for this drug.

Muscular System.—Cinchona produces anæmia, muscular prostration, myalgia, and neuralgia, as shown in Cinchonism. In the extremities, Quinia produces debility of the muscles, myalgia, and intermittent rheumatic neuralgia. Full doses produce complete prostration of the motor nervous system, and, through this, of the muscles. To get the great prostrating effect of this remedy, requires large doses; but it takes but a small quantity of Gelsemium and Veratrum viride. The effects of Quinia are more lasting (chronic in nature), the prostration of the muscular system being in a great measure caused by anæmia of the blood-making organs.

Eulenburg found that "the drug in poisonous doses abolishes all reflex action before voluntary motion; since poisoned frogs, in which no movement could be excited by mechanical or chemical irritations of the skin, would immediately turn into their normal position when laid on the back. That these movements were voluntary, was shown by the fact that section of the cord high up prevented them.

"When Quinia was brought into contact with a nerve, it did not cause contraction in the tributary muscle; but, when placed upon the muscles themselves, it induced immediate violent action. He therefore concludes that it is not a nerve-irritant, but a muscle irritant. When administered to dogs in sufficient quantity, it produces restlessness, followed by muscular tremblings, which have been compared to those of paralysis agitans; loss of power, deepening into more or less complete paralysis; dyspnœa; cerebral symptoms; convulsions; and finally death by failure of respiration."—*H. C. Wood*.

From anæmia, we have myalgia of the muscles, and intermittent neuralgia.

Skin.—"In the Quinine factories of France, it seems that an acne-like eruption is one of the most common effects of exposure to the Cinchona dust; and it is so clearly recognized that some workmen are obliged to abandon the business on account of its persistence. It appears in an acne-like, itching eruption,

principally upon the thighs, scrotum, etc., though often over the whole body, exuding a sero-pus, and finally forming scabs. When the suppuration attacks the face, it occasions great swelling of the head, face, and eyelids (similar to Rhus-poisoning); and the suffering of the patient is often very acute, especially when it attacks the genital organs. It makes its appearance very shortly after exposure to the poison, and disappears upon removal from its influence."—*Stille*.

Cinchona and its Alkaloid have often cured moist gangrene of the scrotum and vulva. The above effects show that it has a special action upon those parts. From the prostration and decay of the reproductive system, ulcers may be produced upon the skin; and Quinia has often cured such ulcers.

From the anæmia produced by Quinia, we have general anasarca of the cellular tissue.

Jaundice is a prominent symptom of this remedy.

Blood.—Cinchona, and especially its Alkaloid, is a most potent protoplasm poison; even in minute doses, it kills the white corpuscles; and this produces a state of the system similar to that caused by the loss of this vital fluid. Briquet found that Quinia increases the fibrine, and diminishes the number of red corpuscles in the blood; and this fact destroys the theory of the tonic properties of Cinchona, unless it be given in very minute doses. Anæmia is well outlined in Cinchonism.

"According to Bonorn and Arvedi, to Magendie, to Monneret, to Melier, and to Baldwin,—in animals killed with Quinia, the blood is found to be a dark, defibrinated fluid, and incapable of forming a clot. Briquet, however, denies that this alteration of the blood is constant or even common in Quinia-poisoning, as he found it in only four out of twenty-three dogs so sacrificed; and he believes that it is merely an accident dependent upon the method of death. In a series of analyses, apparently carefully made, he found that the continued use of Quinia augments the proportion of fibrine, but lowers that of the corpuscles. . . .

"In 1867, Prof. Binz announced the fact that Quinia, added to human blood in the proportion of one part to four thousand, immediately checks, and in a short time arrests, the amœboid movements of the white blood-cells. Confirmation of this has been furnished by Scharrenbroich, Kerner, Geltowsky, and by Jerusalem-sky. The minimum effective strength of the solution has been found to vary in different species of animals, and even in different individuals of the same species.

"It is a matter of great interest to determine whether Quinia acts in the living organism as on the stage of the microscope; and, to settle this point, Prof. Binz has experimented according to the method of Cohnheim. He found, that, when the mesentery of Curarized frogs, to which Quinia had been given, was exposed upon the stage of the microscope, no accumulation of white blood-cells in the small vessels, or passage of them out into the tissues, occurred upon irritation; or, if after a time these phenomena commenced, they were at once checked by a small hypodermic injection of the Alkaloid. When the inflammatory process had already commenced in a 'Cohnheim frog,' an injection of Quinia would cause the wandering out of the corpuscles to cease, and would bring about a gradual clearing of the white cells from the choked-up vessels. Prof. Binz further took two young cats, and, after poisoning one of them with Quinia, examined their blood. In the blood of the unpoisoned animal, the white cells were far more abundant than in that of the poisoned cat. From these facts, Prof. Binz deduces the conclusion that Quinia acts destructively in the system upon the white blood-corpuscles in the same way as when they are out of the body. Dr. Geo. R. Cutter has experimentally confirmed the effect of Quinia in preventing the extrusion of white blood-cells in the frog's mesentery; and A. Martin has not only done this, but has also found that the action of the drug is apparent in the center of parenchymatous organs, such as the liver.

"On the other hand, Schwalbe and Geltowsky could not confirm the above; and the nature of the action of the Alkaloid upon the white blood-corpuscles in the body, must, therefore, be considered undetermined.

"It would seem that Quinia acts also upon other portions of the blood than the white corpuscles. Manassein, of Berlin, in 1872, found that in fever occurring in the lower animals the red corpuscles are diminished in size. If in this condition a decided dose of an antipyretic, such as Quinia or alcohol, be given, and the temperature falls, the globules resume their normal size. That the change is due to the fall of temperature, rather than to a direct action of the drug, is, I think, demonstrated by the fact of its occurrence whenever the fever heat is lowered by the application of external cold. The experiments of Manassein, therefore, do not prove that Quinia exerts any direct action on the red corpuscles. The investigations of Binz, however, appear to show that the Alkaloid lessens the ozonizing power of the blood; for he found that in young cats, to which he had given a very large but

not fatal dose of Quinia, the freshly drawn blood affected the tincture of guaiac much less than it normally should.

"When blood is drawn from the body and allowed to stand, acid is developed in it. Zunst, who has studied this subject most closely, divides the investigation into—study of the production of acid in the tissue from the escape of the blood from the vein to its coagulation, and study of the slow changes which increase its acidity when coagulated until putrefaction has fairly set in. Prof. Binz believes that this development of acid is due to oxidation, and by an elaborate series of experiments has determined that Quinia (also Sulphate of Bebeeria and Picrate of Sodium in almost as great a degree) inhibits these changes very greatly in both their varieties. These experiments are in accord with the previous ones of A. Schulte; and the fact therefore may be considered proven.

"If ozonized oil of turpentine be dropped into an alcoholic solution of guaiac resin, no alteration of color occurs; but, if a drop of blood be added, the blue appears at once; i. e., the blood acts as a carrier of ozone from the turpentine to the resin. Prof. Binz has found that Quinia, even in so small an amount as one part in twenty thousand, has a perceptible influence in preventing this. Similarly, when into a dilute watery solution of the Sulphate of Indigo, Carbonate of Sodium is thrown until the reaction is decidedly alkaline, and a little blood, and subsequently ten drops of ozonized turpentine, are added, a green color begins at once to develop, and in a little while passes into the clear yellow of isatin. In this case, also, the blood acts as a carrier of ozone; and Binz and his pupil Ransone have found that Quinia also inhibits this action, one part of it added to a thousand of the mixture delaying the change of color for an hour. In these experiments, Binz used a large number of different salts of Quinia, and found that they acted identically. That the action of the Alkaloid was on the blood, not on the indigo and guaiac solutions, was shown by the fact, that, when similar solutions without the blood were shaken in the air and absorbed ozone, the characteristic colorations of its action were produced just as readily when Quinia was absent as when it was present. Binz also proved that the red corpuscles were the portions of the blood affected. On adding crystallized hæmoglobin from horses' blood to the guaiac solution, he found that it acted as an ozone-bearer between the turpentine and the guaiac, and further demonstrated that Quinia had the power of preventing this action. It is an exceedingly

plausible theory that the lowering of the temperature is due to a checking of the ozonizing power of the blood."—*Dr. H. C. Wood.*

The Action upon the Circulation.—This has been studied most closely by Briquet, "who found that large doses of the Alkaloid injected into the stomach, cellular tissue, or veins of dogs, produced decided lowering of the arterial pressure. He also found, that, when a sufficient amount was thrown into the jugular vein, the heart was almost instantly arrested in its beating, and, on examination, was found to be relaxed, destitute of contractility, and with its left side full of scarlet blood. He also discovered, that, if the Quinia was thrown into the exposed heart in such a way as to be carried into the coronary arteries, similar phenomena were induced, even more rapidly. These experiments made upon the dog have been confirmed upon the frog by Schlockow and by Eulenburg. The first of these observers found, that, after the section of the vagi, Quinia induces slowing and enfeeblement of the heart's action; and Eulenburg not only confirmed this, but proved that if the frog's heart be immersed in a solution of Quinine, its contractions become at once slow and irregular, and soon cease altogether. The concurrent testimony of this and other observers is so clear that it must be considered as established that Quinia, in sufficient quantity, causes a diastolic cardiac arrest by a direct depression on the heart. (M. Chirone believes that by Quinia the heart is arrested in active dilatation. The theory is very improbable.) The fall of the blood-pressure which it produces would seem, however, not to be due solely to such cause; for Schroff found that in the Quinized animal neither galvanization of a sensitive nerve, nor asphyxia, was able to produce vascular contraction, and rise of blood-pressure; and Jerusalemsky asserts that in frogs, dilatation of the vessels could be seen. These facts seem to demonstrate that toxic doses of Quinia paralyze the vaso-motor nervous system. Both Schroff and Jerusalemsky noticed that the fall of the arterial pressure produced by Quinia, is preceded by a rise of the pressure, accompanied with an increase of the cardiac action. The latter, on perhaps not conclusive evidence, Jerusalemsky believes to be due to paralysis of the inhibitory cardiac apparatus. The rise of the pressure is probably the result of a stimulant action upon the vaso-motor centers; as Jerusalemsky found that it was not produced after a division of the cord. Many observers agree in asserting that in very large doses (thirty or ninety grains) Quinia produces in man lowering of the frequency and force of the pulse. The rate of pulsation has

been recorded as falling to below forty per minute; and, after poisonous doses, the pulse has been imperceptible at the wrist. When the pulse becomes very feeble, it may become very rapid; but, of course, this increased rapidity is indicative, not of cardiac strength, but of cardiac weakness. I have never, however, been able to perceive any depressant action upon the circulation in man after ordinary therapeutic doses (three to five grains), and have met with no experiments on animals indicative of its occurrence. I believe, therefore, that in tonic doses Quinia produces no perceptible sedation of the circulation. Further experimentation is required before our knowledge can be considered settled; but at present the whole evidence appears to show, that, in man and in the lower animals, toxic doses of Quinia diminish the arterial pressure by acting directly upon the heart and paralyzing the vaso-motor centers, while small doses transiently elevate arterial pressure by stimulating the vaso-motor centers. Doses of five grains in man certainly produce no symptoms of vascular depression (*but they do produce excitation and elevation of temperature*), while, after a drachm or more of the Alkaloid, such symptoms may be very manifest."—*Prof. Wood, Materia Medica.*

"Dr. Cheirone, of Naples, has shown that Quinia increases the diastole of the heart. At first, the systole is indirectly increased on this account; hence the increased energy of the cardiac contractions obtained by small doses. With larger doses, the diastole altogether predominates, the systole becomes weaker, and the heart is finally arrested in diastole. This increase of the diastole causes an increased aspiration of blood to the heart; and, after arrest, it is found by actual measurement to be much enlarged."—*Gazette Hebdomadaire, 1875.*

How does Quinine enter the circulation? "This has been especially studied by Dr. Kerner. As the gastric juice is very acid, it is evident that the Alkaloid will be rapidly dissolved in the stomach and be put into the conditions most favorable for its absorption; if, however, it escapes from the stomach into the intestines, it will be liable to be precipitated by the alkaline juices, as well as by the bile, whose acids form very insoluble salts with it. The presumption is therefore strong, that, when gastric absorption fails to take place, at least a portion of the Quinia will pass out with the fæces. That this actually does occur, has been proven by Kerner and others, who have found the Alkaloid in the excrement of persons taking it (a hint that it would be better to dissolve Quinia in acid before ingestion). As the blood is alka-

line, it would appear probable that the Quinia salt, so soon as entering it, would be precipitated. That this does not occur, according to the researches of Kerner, is due to the solvent power of the gases contained in normal blood. One thousand parts of defibrinated blood deprived of its gases, at a temperature of 36° C., dissolved in an hour only 0.398 part of pure Quinia. Water saturated with carbonic acid gas dissolves the Sulphate of Quinia pretty freely. If a neutral solution of a salt of Quinia is added to a very dilute solution of carbonate of sodium, no precipitate occurs (another good vehicle in which to administer Quinia). It would appear, then, that the Quinia is held in solution in the blood by reason of the loosely combined carbonic acid gas in that fluid."—*Dr. H. C. Wood, Materia Medica.*

Temperature.—The power Quinia has to reduce bodily temperature, is mainly a therapeutic, and not a physiological, effect; but small doses of from five to ten grains, do have a physiologico-pathological effect, i. e., by elevating the normal temperature from one-half to one degree, a fact brought out by experiments of my own upon the healthy body. Dr. Ringer says it lowers the healthy temperature; but the great center of interest is the power that this Alkaloid has in reducing an elevated temperature in disease. It is supposed to lower temperature by lessening the oxidizing power of the blood and thus checking oxidation.

Dr. C. D. F. Phillips says: "At the present time it is evident that scientific opinion is coming to agree with that expressed by Binz; namely, that the lowering of bodily temperature is produced by means of a general interference of Quinine with the oxidation processes of the body in almost every part of it."

Dr. H. C. Wood says: "The drift of our present clinical evidence seems to indicate that Quinia exerts in febrile disease a decided antipyretic action, which is especially manifested during those stages of disease in which the natural tendency is toward lowering of temperature. In *typhus* and *typhoid fever*, *scarlatina*, severe *erysipelas*, *rheumatic hyperæmia*, etc., after the use of a cold bath, twenty grains of the Alkaloid are often very efficacious in preventing a rapid return of the excessive fever. If the experiments spoken of above be correct, this reduction of temperature must be due to an action on the tissues, and not on the central nervous system. It would seem, however, more probable that Quinia acts as an antipyretic by stimulating the inhibitory chemical center; but decision of this must be reserved for future investigations. As an *antipyretic*, the drug should be used whenever

there is serious elevation of temperature, except it be cases of simple inflammation of the brain or its membranes. All antipyretic remedies appear to act more strongly on children than on adults."

Fever.—What produces fever? Increased tissue metamorphosis (decomposition) produces heat. Paralysis from diminished excitation of the nervous moderators, produces fever heat. Claude Bernard says: "Chill is from excitation of the sympathetic, and heat is from paralysis." This looks reasonable; for the nerves of contraction are from the sympathetic, and the nerves of dilatation are from the cerebro-spinal roots.

Fischer says, that "there exists in the cervical part of the spinal cord an inhibitory (or regulator) center for temperature, excitation of which causes a rise of temperature," and thinks that "this center is in the anterior columns of the cervical enlargement."

Of fever, Dr. Smith says: "The chain of diseased organs consists of the brain and spinal cord; the heart and arteries, especially their capillary extremities; the secreting and excreting organs, which in fact are composed essentially of the capillary extremities of these arteries, especially as they terminate in the external skin, and in the mucous membrane which forms the internal skin. There never was a case of fever, in which all these organs and functions were not more or less in a disordered state; and this complete circle of organs was never in this morbid state without fever. A deviation from a healthy state in one or two circles will not produce fever; there must be deviation in the three circles before fever can exist."

Every fever remedy must act upon the central nervous system; for it has full control in the distribution of the blood throughout the organism, and upon the temperature of its various parts. In our study of Cinchona, we have found that its center of action is upon the base of the brain, and the ganglionic nervous centers that control the functions of organic life. This explains at once to the Homœopath, why Cinchona and its Alkaloid are so useful in fevers; because it acts specifically upon the same organs and tissues that are affected and have control in fevers. The poison causing the fever, and the Quinia poison, are so constituted that they have an affinity for each other so strong that the system, acting upon them, unites them by catalysis, forming a neutral substance that has no affinity for the previously affected organs and tissues, and, consequently, is easily

thrown off; and the functions of the body soon become normal again.

Every fever to which the human organism is subject, affects certain organs and tissues peculiar to itself. For instance, the effects of scarlatina differ from those of diphtheria; the specific poison that causes small-pox, differs greatly in its effects from that causing morbilli. The same with typhoid and malarial fever. All cause fever; but each specific agent produces changes in the organism peculiar to itself. So it is with our remedies; Cinchona produces changes in the organism, identical with those produced by malarial fever; this makes it the great specific for intermittents; but it does not produce changes similar to those caused by typhoid fever, consequently can not be homœopathic to this disease.

Dr. E. M. Hale, in writing upon *malarial miasmatic*, or *paludal fevers*, says: "As to the exact nature and origin of the causes of these fevers, the medical world is not unanimous. It is my belief, however, that such fevers *have a cryptogamic origin*; that the spores of certain cryptogamic plants, invisible to the naked eye, are absorbed into the system, probably through the respiratory or digestive organs, and are carried into the blood, where they cause, by their fermentive (propagative) force, febrile manifestations. I believe with Salisbury, Bartlett, and others, that the prodroma and febrile paroxysms (chill, fever, sweat) are the efforts of the organism to throw off the accumulated poison. I believe that Quinine destroys the spores of the fungi in the blood, and is also homœopathic to the symptoms of the fever itself."

Many physicians believe that Quinia cures ague by destroying these microzymes in the blood. This I can not accept; for how could the 10th, 30th, 200th, or 1000 dilution act chemically upon these microzymes, so as to destroy their life and thereby cure the disease? We know for a positive certainty that these dilutions do make brilliant cures, both in the acute and chronic stages of this disease. No; paludal malaria, with its varied effects, is cured like all other diseases. This malarial poison, I believe, consists of *telluric exhalations* from the earth, is gaseous in form, and of an acid reaction; and, when inhaled, is carried by the blood to certain organs and tissues, where it produces intermittent fever, in all of its varied forms. We select remedies that have a special action upon those tissues, and the disease is cured, probably by catalysis.

I believe intermittent fever to be a *neurosis*, caused by aqua-malarial poison, be this poison telluric, cryptogamic, or what not. After it enters the circulation, the blood acts simply as a conductor of the poison to the various nervous centers that it selects for a location; and this location may be the *cerebro-spinal system*, the *sympathetic*, or *both*, or a *single ganglion*. Or it may be the blood itself, destroying the white corpuseles, producing hydræmia, etc.

My friend Dr. I. S. P. Lord truly says: "There can be but two grand divisions of the nervous system,—the animal or cerebro-spinal system, and the sympathetic. The nerves from both of these systems run side by side to every part of the organism, and generally in the same envelope, and yet remain practically separate in *fact* and in *function*. The characteristic symptoms of ague must be caused by one or the other; and the only question to solve is, To which system do the symptoms belong?"

The sensation of heat and an elevated temperature belong to the sympathetic, and that of cold to the spinal; and this is the *grand key*, not only to give us the *pathology* of the case, but to determine the *class of remedies* that *will cure the disease*.

"Whether the chill or heat appears first, depends mainly on which system is most powerfully impressed by the malaria; and, if the two sensations alternate, it is because the disorder of one system remits for a time while that of the other takes its place or is exacerbated. And, if there is heat with chilliness at the same time, it only proves that the two are acting concurrently. If the sweat comes first, it only indicates that the glandular system is first disordered. If there is no chill, it implies that the spine is not directly irritated or disordered. If there is no heat, it is good evidence that the sympathetic system is not disordered by the malaria; and so of all the other conditions. We have only to classify our remedies so as to meet these two pathological conditions, and our therapy is complete. We have only to divide our ague medicines into *two great classes* to correspond to the two great physiological divisions, sympathetic and spinal, which, pathologically expressed, gives us *sympathetic irritants* and *spinal irritants*; and, going from general to the special, the subdivisions into cerebro-sympathetic on the one side, cerebro-spinal, anterior spinal and posterior spinal, on the other, follow naturally, and may be carried still further if necessary."—*Dr. I. S. P. Lord*.

This classification is based upon a law of unalterable physiology and pathology, and needs not special pleading to those phy-

sicians who practice in malarial fields. "It reduces the great and most discouraging labor of selecting a remedy almost to zero, while nothing is left to accident;" and we do not have to choose from the whole *Materia Medica*. As a rule, we need never go outside of twenty-eight remedies. Dr. I. S. P. Lord gives seventeen, and says not more than twelve of these ever cured ague uncomplicated with disease of the liver, spleen, or lungs. His classification is the following for intermittents:

Spinal Irritants.

Ignatia,	Nux vomica,	Rhus tox.,	Veratrum album.
Eupatorium,	Pulsatilla,	Sabadilla,	

Anterior Spinal.

Strychnia.

Posterior Spinal.

Eupatorium, Pulsatilla.

Cerebro-Spinal.

Belladonna,	China,	Nux vomica,	Quinine,
Bryonia,	Gelsemium,	Phosphorus,	Rhus tox.

Both Spinal and Sympathetic.

Arsenicum,	Eupatorium,	Natrum mur.,	Pulsatilla.
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Sympathetic Irritants.

Arsenicum,	Cimex,	Colocynth,	Natrum,
Chamomilla,	Cina,	Ipecacuanha,	Pulsatilla.

Cerebro-Sympathetic.

Belladonna,	Chamomilla,	Ipecacuanha.	Tartar emetic.
Bryonia,			

Reflex Sympathetic.

Chamomilla,	Cimex,	Cina.
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Dr. E. M. Hale makes two classes of ague remedies, as follows:

1. Quinia, Gelsemium, Eucalyptus, Nux vomica, Arsenicum, and Cedron.

2. Eupatorium, Cornus, Salicine, Arnica, Natrum muriaticum, Berberina, and Hydrastis.

Those of the first class have the power of poisoning protozoa, infusoria, and cryptogamic fungi.

I would make the following classification :

Cerebro-Spinal.

Cinchona,	Eucalyptus,	Ostrya Virginica,	Salicine,
Cedron,	Gelsemium,	Polyporus,	Salicylic acid,
Cina,	Natrum salicyl.,	Sabadilla,	Sulph. of Quinine.
Cornus Florida,			

Anterior Spinal.

Cina,	Nux vomica,	Strychnine,	Veratrum album.
Gelsemium,	Santonine,		

Posterior Spinal.

Camphor,	Eupatorium,	Gelsemium,	Pulsatilla.
Capsicum,			

Pneumogastric.

Arsenicum,	Eupatorium,	Phosphorus,	Tartar emetic,
Carbo veg.,	Ipecacuanha,	Sabadilla,	Veratrum album.
Chelidonium,	Natrum salicyl.,		

Sympathetic.

Arsenicum,	Ferrum,	Natrum mur.,	Sulphur.
Carbo veg.,			

Of course, many more remedies in the *Materia Medica* will cure certain forms of ague ; but, as a rule, it will be loss of precious time to go outside of the twenty-eight mentioned above. And, as a rule, the more malignant the epidemic, the stronger must be the dose. In mild endemics and epidemics, most any one in a group will cure, if the organ most affected is the one the group of remedies acts mostly upon ; but, in malignant epidemics, the Sulphate of Quinine, in material doses of from one to five grains every two hours, between the paroxysms, will have to be the standard. And, if the three stages are well marked, no remedy can take its place ; but, if the three stages are not well defined, Quinia will be worse than useless.

Dose.—The specific and powerful action Quinia has upon the white corpuscles of the blood, destroying them at once, teaches us that this Alkaloid should never be given in twenty-grain doses, without it is in congestive malarial fever, and we only have one hour or so before another paroxysm is due. I feel perfectly satisfied, from a large clinical experience, that from one to five grains at a dose, given during the apyrexia, commencing as soon as the patient begins to perspire, and repeated every two hours, until one hour before the expected paroxysm, will be far more successful than larger doses, and, at the same time, not injure the blood-

making organs of the patient, as I am certain twenty-grain doses do. Of course, the attenuations of Cinchona will cure a large majority of those cases, but will fail in some that will be cured with the Alkaloid.

Antiseptic Action.—Quinia is an active poison to the fungi of putrefaction and ordinary fermentation. Alcoholic fermentation is arrested at once by this Alkaloid. Prof. H. C. Wood says: "As long ago as 1765, Dr. Pringle called attention to the fact that Cinchona bark, in decoction or powder, has the power of preventing for a time, putrefaction in flesh; and more recently, the subject has been studied by Mayer, Pavis, Hallier, Herbst, Polli, and especially by Binz. The experiments of these authorities have demonstrated that Quinia, in the proportion of one part to three hundred, will preserve for a long time flesh, meal, milk, butter, urine, albumen, etc., and will check very markedly alcoholic fermentation in honey or in syrup. Prof. Binz has demonstrated that this antiseptic action is due to a poisonous influence exerted by the Quinia upon the fungi which are the immediate cause of the changes. According to his experiments, the larger infusoria, such as Paramecia and Colpoda, are killed by a solution of Quinia of the strength of one in eight hundred, immediately; of one in one thousand, after some minutes; of one in twenty thousand, after some hours. Upon the ordinary mold, *Penicillium*, upon vibrios and bacteria, as well as upon the higher infusoria, Quinia acts with a similar fatality. In the case of the vibrios and bacteria, a stronger solution than the one mentioned is required to quiet movement."

Dr. Ringer says: "Small quantities of Quinia destroy septic germs and arrest putrefaction more thoroughly than most antiseptics, including Arsenic and Creosote."

Fluorescence of Quinia.—The remarkable property belongs to Quinia of converting the chemical rays of the spectrum into light, or, in other words, of rendering visible the ordinary invisible rays of the solar or other spectrum. When a colorless watery solution of one of the Quinia salts is examined, "a pale blue line upon the surface is very noticeable; and Prof. Stokes has shown that a solution of Quinia has the power of entirely stopping certain rays of the light, so that, when a beam is transmitted through it to light up a second vessel of the solution, this latter displays no fluorescence. Dr. H. Bence Jones has found, that, when the electric light is used, this test is so delicate that one grain of the Alkaloid may be detected in 1,450,000 grains of water.

He has also discovered that man and animals are pervaded by a substance, which, in its action on light and in many chemical reactions, very closely resembles, if it be not identical with, Quinia. Believing this substance to be probably an Alkaloid, he has given it the name of *Animal Quinoidine*." The fluorescence of normal blood is said to be from 3 to 6, and that in malarial fevers only from 0 to $1\frac{1}{2}$. If this should prove true, it is additional testimony to the usefulness of Quinine. The fluorescence of Quinia demands further elucidation.

Spinal Centers and Nerves.—Cinchona, and especially its Alkaloid, acts quite prominently upon the anterior spinal cord, as shown by the great muscular paralysis. "If as many as thirty grains are given daily in divided doses, for several successive days, there may be observed very great depression, apathy, and somnolence, a very unsteady gait, hardness of hearing, dimness of vision, and dilatation of the pupils; the general sensibility is very obtuse, the muscular movements are feeble, and the limbs tremulous. If, finally, the doses have been excessive, complete loss of consciousness may occur, sight and hearing may entirely fail, the skin may lose its sensibility, and the limbs their power of motion."—*Stille*.

"According to the experiments of A. Eulenburg, the drug in poisonous doses abolishes all reflex actions before voluntary motion; and, according to Dr. T. A. Chaperon, the lessening of reflex action is due, not to a direct influence of Quinia upon the cord, but to a stimulation of the inhibitory reflex centers which Setschenow has proven to exist in the cerebrum of the frog. Thus, when the reflex action in a frog poisoned with Quinia had almost disappeared, section of the cord was instantly followed by the return of normal activity in the parts below the point of division; again, if the cord were divided before the administration of Quinia, no depression of the reflex activity below the point of section occurred."—*Dr. H. C. Wood, Materia Medica*.

In tetanus, Dr. W. A. Hammond credits Quinia with curing seventy-three per cent, showing that it does have a fine curative action upon the cord. Its narcotic action produces, through the motor nerves, prominent contraction of muscular fiber.

Therapeutic Individuality.

The system has been debilitated by the loss of vital fluids, especially of blood or semen, or by diarrhœa, leucorrhœa, over-lactation, or copious night sweats.

Symptoms are intermittent, patient worse every other day.

The least draft of air causes great suffering.

Paroxysms of pains caused by the slightest contact, and gradually increasing to a great height.

Motion brings on intense neuralgia.

Recent malarial intermittents, with the three stages well marked.

In all diseases calling for this drug, periodicity is the greatest feature.

Head.—Long-lasting congestive headaches, with deafness, or noises in the ears.

"Heaviness of the head, with loss of sight, fainting, and ringing in the ears."—*Hg.*

Intense throbbing headache after excessive hemorrhage.

Congestive throbbing headache, with singing, roaring, hissing noises in the ears, especially if the patient has been debilitated by malaria, or loss of vital fluids.

"Headache, aggravated by a draft of air, in the open air, from the slightest contact, and relieved by hard pressure."—*Lippe.*

"Sensation as if the head would burst, with sleeplessness at night; aggravated from touch, motion, walking. Ameliorated in the room, and on opening the eyes."—*Lippe.*

Head feels light, with headache and vertigo on walking, with nausea and faintness.

Much vertigo, with headache, accompanied with nausea and vomiting; from malaria.

"Sleeplessness at night; he lies awake nearly all night thinking, restless and uneasy, and miserable the next day."—*Hempel.*

"Full of plans and projects, especially at night."—*Hempel.*

Great depression of mind, aggravated by noises or anything that affects the senses.

"She thinks she is unfortunate, and constantly harassed by enemies."—*G.*

Ill humor, with disposition to abuse everybody.

Apathy, indifference, prefers to be alone.

"Low spirited, gloomy, has no desire to live."—*Hg.*

Exertion of the mind greatly aggravates the head symptoms.

Scalp sensitive to touch, movement of hair produces much pain at the roots, as if the hair were grasped roughly.

Ears.—Complete deafness, in weak, debilitated people, from loss of vital fluids; tinnitus aurium.

Humming, hissing, singing, roaring noises in the ears.

Hardness of hearing, with ringing noises in the ears, with malarial intermittent congestion of the head; nervous deafness, from paralysis of the auditory nerve.

Eyes.—In ophthalmia of malarial origin and intermittent character, or from anæmia from loss of blood. In kerato-iritis, the pain is excessive, sharp, cutting as if an instrument were being moved about in the eye, worse every forenoon; motion of eye very painful.

"In intermittent ciliary neuralgia, it has proved very beneficial when there was painful pressure and drawing in the forehead and temples every day at 10 a. m., lasting three hours; every touch or motion aggravated the pain."—*Raue*.

For neuritis from loss of animal fluids, use Quinine.

Eyes very sensitive to bright light, with dimness of vision.

The whites of the eyes are very yellow, in jaundice.

Nocturnal and intermittent blindness; amblyopia in drunkards.

Face.—Pale; yellow; red during fever; hippocratic, or hot when entering a warm room; face pinched; eyes sunken.

Malarial neuralgia, the pain is excited by merely moving the affected parts; especially supra-orbital.

Toothache worse from least contact, tea, in open air, or from moving; better from pressing teeth together.

Mouth.—Thick, dirty, yellow coating on the tongue, with bitter taste.

Complete loss of appetite in people suffering from malaria.

Great longing for acids, with slimy, sour, or bitter taste.

Canine hunger, especially at night.

Bitter, flat, watery taste, dryness of the mouth.

Stomach.—Violent thirst for cold water; drinks but little, but wants it often.

Loss of appetite, with nausea at the thought of food.

Sour, acid belching, heartburn, milk disagrees.

Stomach excessively acid, with sour vomiting, and sensitive to touch.

Frequent vomiting of bile in malarial fevers.

Slow digestion; food remains long in the stomach.

Hæmatemesis; great loss of blood; weak and very pale.

Heavy pressure in the stomach, after small quantity of food.

Pulsation in the pit of the stomach; very sensitive to touch.
Chronic indigestion, with much flatulence. (Of great value.)
Fullness in the stomach, that belching does not relieve.

Abdomen.—Enormous distention of the abdomen; feels packed full; not relieved by eructations or dejections.

Abdomen feels full and tight, as if stuffed; eructations give no relief; fermentation in abdomen from eating fruit.

Stomach and bowels feel sore; can not bear the slightest touch.

Tympanitic abdomen, with incarcerated flatulence, and colic, especially at night; abdomen excessively tympanitic.

Diarrhoea of water or undigested food; worse nights.

Diarrhoea comes on gradually, more and more watery, pale, pinkish, with rapid emaciation, and much fermentation in the abdomen.

Watery, windy stools, with great debility, and painless.

For gall-stones, Dr. Angel thinks it is a specific.

Colic from gall-stones, with swollen, hard liver.

"Pain in the hepatic region as from subcutaneous ulceration; worse from touch."—*Hg.*

Enlarged spleen, with aching pains in that region when walking, extending along the whole length of spleen.

Excessive jaundice, from gall-stones or malaria. No remedy can excel Quinine in jaundice when caused by malaria.

Urine.—Urine dark, scanty, and throws down a copious brick-dust sediment (of phosphates).

"Scanty, greenish-yellow brick-dust sediment."—*Hg.*

Turbid, dark-colored urine, with pinkish sediment.

Sexual Organs, Male.—Sexual desire, with lascivious fancies, especially at night; impotence.

"Nocturnal emissions, frequent and debilitating."—*Hg.*

Impotence, with lascivious fancies, from long-continued seminal losses; much sadness and prostration.

Painful swelling of spermatic cord and testicles; tearing pains.

Sexual Organs, Female.—Menses too early and too profuse, with sensation of great distention of the abdomen.

Metrorrhagia; blood dark; fainting; convulsions.

Much congestion of the uterus; hemorrhage after miscarriage, with faintness from great loss of blood.

Leucorrhœa instead of the menses, with great debility.

"Leucorrhœa before the menses, with painful pressure toward the groin and anus; or bloody, fetid leucorrhœa, with contractions of the inner parts."—*G.*

"She can not bear to be touched during labor-pains, not even her hands."—*G.*

Intermittent, spasmodic labor-pains; she can not bear to be touched.

"Labor-pains cease from hemorrhage; can not bear the hands touched."—*Hg.*

"Uterine hemorrhage; ringing in ears; fainting; cold; loss of sight; discharge of clots; uterine spasms; twitches; jerks; and wants to be fanned."—*Hg.*

Lochia last too long; very fetid, with much exhaustion.

"Ovaritis from sexual excess; parts very sensitive."—*Hg.*

Respiratory Organs.—At night, suffocative cough, with stitches in the chest; can not breathe with head low.

Much oppression of the chest, with hæmoptysis; breath cold.

"Wheezing, whistling inspiration; rattling, oppressed, and painful."—*Lippe.*

Suffocative catarrh, and paralysis of lungs in old people.

Asthma worse in damp weather; at night, and from hemorrhage.

Cough first dry, and then copious, slimy expectoration; worse from head low; from motion; least draft, or loss of fluids.

Extremities.—Trembling of the arms and legs from great weakness; from malarial fevers or loss of blood.

Aching in the limbs; wants to change position constantly.

Aggravated by the least pressure; spasmodic stretching.

Great weakness of the legs; can hardly walk.

Veins of the hands congested; nails blue; hands icy cold.

Over-sensitiveness of the nerves, from loss of fluids.

Laming, drawing, tearing pains in the back and thighs.

Great pains in the small of the back, like cramp; worse from the least movement; pressure as from a stone between the scapulæ.

Legs feel very tired, as from a long walk; knees very weak.

Great debility; trembling, and averse to all exercise, from malaria or loss of animal fluids; general œdema.

Very sensitive to drafts of air, or pain; very nervous.

Numbness of the parts on which he lies; joints swollen.

General anasarca, from malaria or loss of animal fluids.

Skin.—Jaundice, from malaria.

Much perspiration on the side on which he lies.
 Skin dry, flaccid, and very sensitive; flat ulceration.
 Copious, debilitating night sweats, from malaria.
 No remedy can equal Quinine for malarial night sweats.

Fever.—Acute malarial intermittents, with the three stages sharply marked; chill, fever, and perspiration. The chill may be absent, but the fever and perspiration must be present; heat increases the chill; not of much value in chronic intermittents.

Paroxysms come on an hour or two earlier every day, or every other day, or at the same time.

Recent quotidian intermittents; there may or may not be a chill, but there *must* be fever, and it *must* be followed by sweat, and this is profuse and exhausting. Where Cinchona or its Alkaloid is indicated in fever, there *must* be *intermissions* to the fever; head symptoms are prominent; sinking feeling in the epigastrium; an empty feeling without hunger.

Jaundice highly marked; often with gastric symptoms.

Internal violent chill, with icy-cold hands and feet, and intense congestion of blood to the head.

Long-continued heat, with desire to be uncovered.

Perspiration very profuse and debilitating.

Very debilitating morning and night sweats.

Great thirst during the heat, and perspiration.

"The patient sweats profusely, especially on the back and neck, *when he sleeps.*"—*Hah.*

Profuse sweating during sleep, is a strong key for Quinia.

Congestive malarial fevers. Quinia is the only known remedy that will save life in those desperate cases where there is profound coma. Five to ten grains injected under the skin, once in three hours, will save the patient when all other methods fail.

How does Quinia find entrance into the circulation?

Dr. Wood says: "As the gastric juice is very acid, it is evident that the Alkaloid will be rapidly dissolved in the stomach and be put into the conditions most favorable for its absorption. If, however, the salt escapes from the stomach into the intestines, it will be liable to be precipitated by the alkaline juices, as well as by the bile, and a great portion of the Quinia will pass out with the *fæces*.

"As the blood is alkaline, it would appear probable that the Quinia salt would be precipitated. But not so. The blood, being highly charged with carbonic acid gas, keeps it in solution."

Preparation for Use.—When pills are used, they should be soft and fresh; for, when old and hard, they are not dissolved, and pass out and are lost.

It has recently been found that *milk* is a ready solvent for Quinia, in the proportion of one grain to the ounce of milk. Five grains in a tumbler of milk is not only dissolved, but its bitter principle is also destroyed; and this will be found the best vehicle to administer the remedy, especially to children, first dissolving the Quinia in glycerine, one grain of the Sulphate to the drachm.

Aggravation.—From slightest touch; from draft of air; every other day; from cold; from motion; after eating or drinking; from milk; from mental exertion, at night, and from loss of vital fluids.

Amelioration.—From warmth, during rest; afternoon.

CINNAMOMUM.

Cassia Cortex.

Habitat: Ceylon, etc. Tincture, according to Class IV.

Through the cerebro-spinal nervous system, Cinnamon has one special center of action:

I. MUSCULAR SYSTEM. (NON-STRIATED.) *Blood-Vessels Stimulated.*

Muscular System of the Intestinal Canal and Uterus.—When the oil is swallowed, it excites a sense of warmth in the stomach, and causes increased appetite and digestive power, with constipation, and much tympanitis of the abdomen, with colic, etc.

In the uterus, many physicians believe that the oil produces uterine contractions. Full doses act as a stimulant to the non-striated muscles of the vascular system.

Therapeutic Individuality.

For uterine hemorrhages after delivery or abortion, it is one of our most reliable remedies. Dr. P. P. Wells uses a few drops

of the tincture in water, and thinks it is better and safer than Ergot.

"Uterine hemorrhage, threatening or following miscarriage, especially if from a strain."—*F.*

"Menses too early and too profuse, particularly in females troubled with itching of the nose and nightly restlessness; profuse flow of red blood."—*G.*

Dr. Tanner believes it increases labor-pains nearly as much as Ergot; and, in menorrhagia depending upon chlorosis or anæmia, it is superior to all other hæmostatics, when administered a few days before the menses.

Much flatulence, with colic.

"Diarrhœa, always worse after drinking."—*G.*

COCCULUS INDICUS.

Seeds of *Anamirta Cocculus*.

Habitat: Asia, etc. Dried fruit. Tincture, according to Class IV.

Antidotes.—Camph., Nux vom., Ignat., Iod., Cupr., Cham.

Through the cerebro-spinal system, Cocculus has three special centers of action:

- I. CEREBRO-SPINAL S. (MOTOR TRACT.) *Convulsions; Paralysis.*
- II. VAGI. *Violent Emesis; Syncope.*
- III. OVARIO-UTERINE ORGANS. *Spasms; Hyperæsthesia.*

Spinal Cord.—The action of Cocculus is chiefly spent upon those portions of the nervous system which control muscular movements, which are found in the anterior portion of the cranio-spinal axis. Dr. Hughes says: "The testimony of those who have experienced its effects, is that it influences the voluntary muscles, rather than the intellectual powers; with this, Hahnemann's provings entirely agree. I think that the whole range of its curative action becomes intelligible, if we suppose it to influence the motor tract of the cranio-spinal axis from the corpora striata to the cauda equina.

"This ultimate effect of *Cocculus* upon the spinal cord, appears to diminish its irritability, so that, while convulsions are produced in acute poisoning by the drug, paralytic symptoms abound in the continued experiments of the provers."

Prof. Hempel says, it acts upon the spinal system of nerves, causing even paralysis of the motor nerves, and tetanic convulsions.

Pereira says, it acts rather on the voluntary than on the intellectual powers.

Stille says: "The chief symptoms are slight giddiness, a feeling of lightness in the head, and a partial loss of power in the lower limbs, which seem to require unwonted exertions to move them. In larger doses, it may produce death; for at least two cases of this effect are on record. A sickly, cachectic-looking boy, twelve years of age, ate about two scruples of *Cocculus* with cheese. A few minutes afterward he complained of a disagreeable taste in the mouth, with burning in the throat and stomach, and vomited several times without relief. Three days afterward, he presented the following symptoms: Fullness and heaviness of the head, dizziness, anxiety, and restlessness; forehead hot, and covered with a slimy sweat, the eyes turned outward, etc. The remaining symptoms were those of gastritis; and on the nineteenth day, the patient died. On inspection of the body, the vessels of the pia mater were found filled with dark-colored liquid blood; there was serous effusion in the ventricles of the brain, and the right lung was congested. In the abdomen, there were all the marks of peritonitis in an advanced stage."

The experiments of Drs. Bonnefin and Brown-Sequard led them to several conclusions, of which the most interesting is, that *Picrotoxine*, its active principle, does not appear to excite convulsions directly or by stimulation, but indirectly or by increasing the reflex power of the cerebro-spinal axis.

The following comparative results are given by Tschudi, both substances being given in two-grain doses:

STRYCHNIA	PICROTOXINE.
Causes tonic spasms.	Tonic and clonic spasms alternat'g
Kills in three minutes.	Kills in one hour and a half.
Does not act upon the brain.	Slight narcotic action on the brain.
Never causes vomiting.	Excites frequent vomiting.
Does not act upon the secretion of saliva or bile.	Increases secretion of saliva and bile in a very remarkable manner.

Fish, when under the action of *Cocculus*, are soon seized with dizziness, and, after whirling round, remain motionless and float

"Choking constriction of the fauces, with difficulty in breathing, and irritable cough."—*G.*

Extreme aversion to acids, and disgust for beer and food.

All symptoms aggravated by eating or drinking.

Nausea even to faintness, with excessive prostration.

"Great nausea is a characteristic symptom of *Cocculus*. It is provoked by eating, drinking, motion, change of posture, by becoming cold. It occurs in connection with headache and pain in the bowels."—*D.*

Sea-sickness from cerebral irritation.

"Violent nausea during a ride in a carriage."—*Hg.*

"Nausea resembling sea-sickness, as if the stomach heaved up and down; often brought on by looking at a vessel pitching up."—*Hg.*

Nausea, and when sitting up, the objects around seem to move up and down.

Violent contractive pain in the stomach, with acidity.

"Abdomen distended and feeling as if full of sharp sticks or stones when moving."—*G.* [Spasmodic flatulent colic.]

Flatulent colic at midnight, with sour stomach.

"Hard stool every other day, expelled with difficulty."—*G.*

Constipation from paralysis of the rectum and bowels.

Sexual Organs, Male.—Seminal emission at night, with great prostration.

Neuralgia of the testicles and spermatic cord.

Sexual Organs, Female.—"Profuse menses, with sensation of sharp stones in the abdomen on motion."—*G.*

Severe spasmodic pains in the neck of the uterus, accompanied with excessive prostration. (One of the best remedies.)

"During the effort to menstruate, she is so weak that she is scarcely able to stand."—*Hg.* [Exhausting leucorrhœa.]

"Labor-pains are of a spasmodic, irregular, paralytic character; has one hard pain, then several light ones."—*G.*

Spasms of pregnant women, with great weakness; so much so that she can hardly talk, with much flatulency.

"The condition of the nervous system set up by menstruation and pregnancy, appears especially favorable to the action of *Cocculus*."—*Hughes.*

Dysmenorrhœa followed by hæmorrhoids, or sero-purulent leucorrhœa.

Terrible pain in the small of the back, with hour-glass contraction of the uterus.

Chest.—"Irritation and dryness of larynx, dry cough."—*G.*

"Dry, fatiguing cough, owing to the dyspnoea that accompanies it."—*Teste.*

"Palpitation of the heart, from mental excitement, with dizziness and faintness, in hysterical subjects.

"Spasmodic constriction through the whole length of the spine, especially on motion."—*D.*

Extremities.—Paralytic pain in the hips, legs, arms; the arms go to sleep.

Paralysis of the limbs is a prominent symptom.

"Especially adapted to inflammation of the lumbar portion of the cord; less to such portions as are near the brain."—*Baehr.*

Great lassitude on the least exertion; syncope often follows bodily exertion; knees give way; hands and feet go to sleep.

Nervous affections, with paralytic symptoms.

Fever heat alternates with chilliness.

Locally.—The ointment has long been used for the destruction of pediculi on the hairy portions of the body.

Aggravation.—By motion on a boat or in a carriage; exertion, eating, drinking, talking, smoking, and by cold air.

Amelloration.—Warm air after sweat; and at night.

COFFEA CRUDA.

Arabian Coffee.

Habitat: Arabia, etc. Tincture of the best dried unroasted Coffee, according to Class IV.

Antidotes.—Acon., Nux vom., Ignat., Cham., Puls., Op., Bell.

Through the cerebro-spinal nervous system, Coffee has seven special centers of action:

- I. CEREBRUM *Mentality Stimulated; Obstinate Insomnia.*
- II. CORD. (POSTERIOR COLUMNS.) *Sensory Nerve Filaments Paral.*
- III. CIRC. *Vaso-motor Stimulation; Incr'd Blood-Pressure.*
- IV. KIDNEYS. *Incr'd Arter'l Bl'd-Pres. Diuretic. Urea Dim'd.*
- V. SEXUAL ORGANS. *Great Excitement; Paresis.*
- VI. DIGESTIVE ORGANS. *Stimulated, Prostrated.*
- VII. VAGL. *Respiratory Center Powerfully Stimulated.*

Cerebro-Spinal Nervous System.—Caffeine is a special excitant to the nervous and vascular system of the brain.

The sensorium is more vivid; the hearing more sensitive; the visual power becomes more acute; the taste is finer; sleeplessness is excited in various shades and degrees.

This peculiar pathological excitation of the mind and soul goes on until we have vertigo so great that they can not stand; pains in the head; confusion of the senses; singing in the ears; scintillations before the eyes; sleeplessness; wild delirium; excited mentality finally passes into deep sleep. Wood says: "Twelve grains of Caffeine were taken by Dr. Pratt; and in about two hours, intense physical restlessness and a very uneasy condition of the mind were developed; very marked general muscular tremulousness soon followed, and the mental anxiety increased. After this passed off, there was obstinate sleeplessness, active and persistent thinking, with frequent urination. The increase of brain-power which has been noticed by various observers after Caffeine as well as after Coffee, Tea, Guarana and all the allied crude drugs, is undoubtedly real, and must be due to a direct stimulant action exerted upon the cerebrum. It appears to me that the cere-

bral stimulation of Caffeine differs from that of Opium in that it affects the reasoning faculties at least as profoundly as it does the imagination. Coffee prepares for active work, both mental and physical; Opium rather for the dreams and reveries of the poet." In the cat, Caffeine produces a condition of frantic cerebral excitement. Dr. Bennett found that the minimum fatal dose for the cat and rabbit was a little over a grain to the pound, five and a half grains being required for a five-pound animal.

Spinal Cord.—Caffeine and Coffea have a decided action upon the functions of the cord, first greatly increasing the reflex functions, and finally greatly diminishing its action. Dr. Bennett says that Caffeine paralyzes the posterior columns of the cord without affecting the anterior columns. He grounds his belief chiefly on finding, that, in poisoned frogs and rabbits, galvanization of the posterior columns of the exposed cord produced either no muscular contractions, or only such as were very much more feeble than those provoked by galvanization of the anterior columns. It seems to be about settled that Caffeine paralyzes the terminations of the sensory nerve filaments, through its action upon the posterior columns of the spinal cord.

Wood says: "It seems to me established by the whole evidence, that, in the frog, Caffeine produces true nervous convulsions and muscular rigidity. The convulsions are probably spinal; since Pratt found that destruction of the spine prevented their development, but that removal of the cerebrum had no effect. The rigidity is the result of a direct action of the Caffeine upon the muscles; since, as Johannsen first pointed out, it spreads from muscle to muscle, as the hypodermically injected poison diffuses itself, and is never developed in a leg whose muscles are protected by tying the artery. Moreover, in Voit's experiments, the rigidity was developed as usual after the nerve had been severed. In mammals, toxæmic doses produce restlessness, hurried respiration, at first a slight lowering, and afterward a decided elevation, of the temperature, muscular weakness, tetanic and clonic convulsions, increasing general paresis, and finally death, apparently from paralytic arrest of respiration. There is still a good deal of uncertainty as to the nature of the convulsions; but Amory, in some not very conclusive experiments, found that they did not occur below the point at which he had divided the cord. If this result be correct, the convulsions must be cerebral; but confirmation is lacking. Forced artificial respiration in great measure suspends the convulsions."

According to Aubert, "Caffeine, injected in sufficient quantities into rabbits, rats, cats, and dogs, always exalts reflex excitability and produces tetanus. The latter originates in the spinal cord, the nerve-trunks remaining intact. It causes rigidity of the extremities, dependent upon a direct action upon the muscular tissues."

Caffeine seems to have but little effect upon the motor nerves, but has a specific action upon the muscular system.

Muscular System.—Johannsen states, "that, when a muscle under the microscope is touched with Caffeine, its fibers can be seen to contract half their length." Wood says: "When the isolated muscle of a frog is thrown into a one-per-cent, or even weaker, solution of Caffeine, it becomes, in from one to three minutes, contracted, swollen, round, stiff, and unable to respond to the galvanic current. It has been proven that rigor mortis is due to a coagulation of the myosin of muscle; and it is probable, but not proven, that the change wrought by Caffeine is of such a nature." Dr. T. W. Poole thinks it is due to the inherent contractile power of the muscle itself, and not to the myosin. Dr. Brunton says: "Muscle, in dying, on entering into rigor mortis, becomes distinctly acid." But I am inclined to think that it is the acid reaction that produces the rigor mortis.

Circulation.—The vascular orgasm and greatly excited circulation produced by this remedy, we believe to be from its special action upon the vaso-motor nerves contained in the arteries, but which have their origin in the cranio-spinal axis. Dr. H. C. Wood says: "Caffeine undoubtedly exerts an influence upon the heart; although this viscus in animals poisoned by the drug continues to beat after the cessation of respiration. According to Voit, in the frog the rapidity of the cardiac pulsation is at first increased; but the pulsations soon become slower, and are accompanied by irregularity of rhythm; the heart finally ceasing to act, but still responding to stimuli, at a time when the voluntary muscles are absolutely dead. Upon the heart of the mammal, the poison probably acts precisely as it does upon that of the frog. In the first stages of the toxæmia, the pulse-rate is very greatly increased, as, according to Leven, is also the arterial pressure. The action of the poison is probably upon the cardiac muscle, or its contained ganglia; for Johannsen found that the cut-out heart of the frog, when placed in a solution of Caffeine, acted very much as the viscus does in the poisoned batrachian.

Moreover, Leven divided the pneumogastrics and the sympathetics, and, as he asserts, isolated the heart from the spinal cord, and, on administering Caffeine, found that both the arterial pressure and the rate of the cardiac pulsations were increased. [This would seem to prove that my theory, that Caffeine acts on the vaso-motor nerve filaments contained in the arteries, is true. Of course, it also acts upon the cerebro-spinal nerves.]

"On man, toxic doses of Caffeine would probably act as they do upon the lower animals, the cerebral excitement being more prominent in the same proportion as the human brain is more developed than the animal cerebrum." Prof. Hempel says: "It excites the circulation, stinging and smarting on the skin; increased frequency, although proportionate diminution in the volume, of the pulse; a sort of vascular orgasm, flashes of heat, and transitory flushes in the face." According to Lehman, it "causes violent excitement of the vascular and nervous systems, palpitation of heart; extraordinary frequency, irregularity, and often intermission of the pulse; oppression of the chest, pains in the head, confusion of the senses, singing in the ears, scintillations before the eyes, sleeplessness, erections, and delirium." The cardiac condition induced by Caffeine, Phillips says, is one of irritability, in which the slightest excitement is sufficient to bring on violent palpitations.

Dr. Fothergill finds that Caffeine strengthens the contractions of frogs' hearts; and M. Jaccoud believes that it acts on the heart and blood-vessels like Digitalis, strengthening the heart and increasing arterial pressure.

Kidneys.—Caffeine is a marked diuretic, from its great power to increase the renal arterial blood-pressure. Prof. Gubler claims that Caffeine has great diuretic properties when used hypodermically in cardiac dropsy. "Citrate of Caffeine has been found to possess great value as a diuretic and cardiac stimulant in cases of cardiac dropsy, where dilated, feeble, and irregularly progressive physical decay is the main clinical and pathological element to be contended against. In doses of two or three grains, it produces abundant and instantaneous diuresis."—*Homœopathic Times*.

Caffeine checks and lessens the elimination of nitrogen by diminishing the amount of urea excreted, and, in this way, is of great service to man in preventing the tissue metamorphosis, or actual wear and tear, of daily life. "Dr. Lehmann found that the exhibition of six grains of Caffeine daily, the regulated diet

being uniform, diminished the elimination of urea from twelve to twenty per cent. Upon experimenting with the empyreumatic oil of Coffee, he found that it lessened, even to a proportionately greater extent, the elimination of urea, and also acted powerfully in producing sleeplessness; so that the favorite beverage is by no means dependent upon its Caffeine for all its activity."—*Wood*.

Sexual Organs.—Upon the sexual organs of both sexes it excites at first most powerfully the sexual instinct, producing sexual dreams and nocturnal emissions, followed by great prostration of the whole nervous system, with its long train of symptoms.

Digestive Organs.—Coffee at first greatly excites the digestive secretions, with increased hunger, etc.; but, if taken in too large quantities, or by sensitive individuals, it is followed by obstinate dyspepsia, pyrosis, vomiting, gastralgia, etc.

Respiratory Organs.—Coffee causes spasmodic constrictions of the lungs and larynx, with dry, hacking cough, and in some cases asthma. "Dr. Boker drank a cup of Coffee containing the strength of one ounce of the best Java. Half an hour after he was attacked with asthma, dyspnoea, trembling in all his limbs, excessive rush of blood to the head, with vertigo. He walked about in the open air; but his knees shook, he turned pale as a corpse, and lapsed into a sort of fainting state, without, however, losing his senses; the distress of breath kept increasing, and only disappeared in a couple of hours, after he had been obliged to breathe more and more deeply and slowly. He lost his appetite, and remained costive for three days." Caffeine is a powerful respiratory stimulant.

Therapeutic Individuality.

The pains are insupportable; feels them most intensely; can not bear to be touched, the parts are so sensitive.

"Great sensitiveness, with general excitability."—*G*.

"Ecstasy; full of ideas; quick to act, and no sleep on that account."—*G*.

"The physical system seems exalted and almost transported by the mental exaltation."—*G*.

"She is in a complete state of ecstasy."—*G*.

Extreme wakefulness, and restlessness.

"All the senses are rendered more acute; reads fine print easily; hearing, smell, taste, and touch acute; particularly an increased perception of slight passive motion."—*Hg.*

"Affections after sudden emotions, particularly pleasant surprises."—*Hg.*

Adapted to neurotic diseases in people with a nervous or sanguine temperament; especially, if the disease has been brought on by excessive joy.

"Child cries easily; while crying, it suddenly laughs quite heartily, and finally cries again."—*G.*

Head.—"Headache as if a nail were driven into the brain, or as if the brain were torn or dashed to pieces."—*G.*

"Headache as if a nail were driven into the brain; worse in the open air."—*Hah.*

"Headache as if the head would fly to pieces; aggravated by noise and light."—*G.*

"Head feels too small. (Opposite to *Nux vomica*.)"—*F.*

"Congestion of blood to the head; especially after pleasant surprise."—*Hg.*

"Threatening apoplexy; over-excited, talkative; full of fear; pangs of conscience; aversion to open air; sleepless; convulsive grinding of the teeth."—*Hg.*

"Cracking noise in the head (one side), synchronous with the pulse; particularly morning and in the open air; better indoors."—*Hg.*

Flushing of the face at the climacteric.

Mental and nervous excitability, timidity, and fear of sudden death; great lassitude, and debility.

Hemicrania, or Migraine.—I wish to say one word about the paroxysmal headache that afflicts so many people, especially women, now that we understand its pathology. According to Moellendorf, it is due to a lack of energy in the vaso-motor nerves of one of the carotids, with secondary relaxation of the vessel and arterial fluxion to the brain. This temporary hyperæmia and anæmia of one-half of the head, irritates the nerves of the scalp, pericranium, and cranial meninges, and causes nausea and vomiting. This again shows us that Coffee acts upon the vaso-motor nerves, producing and curing this periodical disease.

Hemicrania as if a nail were driven into the parietal bone, is very characteristic of *Coffea*.

Neuralgia.—"Neuralgia of right side of head and face, and right eyeball, at 1 p. m. (12th dilution)."—*W. Bayes, M. D.*

Dr. Bayes cured with the 12th a neuralgia similar to the foregoing, accompanied with spasms of the sphincter ani.

"Toothache, jerking, with anguish; restless; aggravated by warmth, and relieved by holding cold water in the mouth."—*Hale*.

Digestive Organs.—Acute taste.

"Dryness of the mouth at night."—*Teste*.

"Burning, sour eructations."—*Teste*.

"Violent spasmodic eructations, with rising of the ingesta."—*Teste*.

"Tension of the epigastric region, with sensitiveness to touch."—*Teste*.

"Colic so painful as to drive the patient mad."—*Teste*.

"Colic as if the abdomen would burst; can not suffer the clothes to even touch the abdomen.

"Constant alternations of constipation and diarrhœa."—*Teste*.

"Spasmodic contraction of the sphincter, with burning and itching in the anus" (*Teste*), with watery diarrhœa.

Urinary Organs.—Profuse flow of watery, nervous urine. In sympathetic and hysterical affections.

Sexual Organs, Male.—Voluptuous thoughts, and dreams with nocturnal emissions; followed by languor, and great irritability of temper; impotence.

Excessive excitability of the sexual desire.

Sexual Organs, Female.—Great sensitiveness of the female genital organs; can not bear to have them touched, they are so sensitive.

"Genital organs itch voluptuously and are very sensitive."—*G*.

"Excessive sensitiveness about the vulva, with voluptuous itching; would like to rub or scratch the parts, but they are too sensitive."—*G*.

"Aversion to sexual intercourse in women, it is so painful."—*Teste*.

"Profuse menstruation, with excessive sensitiveness of the organs, and voluptuous itching."—*G*.

Leucorrhœa of mucus mixed with blood.

"Labor-pains insupportable to her feelings; she feels them intensely; weeps and laments fearfully."—*G*.

Puerperal fever from mental excitement.

Air-Passages.—Continual inclination to cough, of a dry, spasmodic nature, with rawness of the throat.

Dry, hacking cough like whooping-cough, with this difference, that the spasms are principally experienced during the inspirations, not during the expirations.

Constriction of the chest; asthma at night.

In spasmodic asthma a cup of hot coffee will often arrest the paroxysm at once.

Palpitation of the heart, with great nervous excitability.

Fainting from sudden emotions.

Generalities.—"Tearing pains in the flesh and cellular tissue, rather than in the bones, in the parts between the articulations themselves."—*Teste*.

"Trembling of the hands, with heat in the palms and coldness of the back of the hands."—*Teste*.

"Measly spots on the skin, with dry heat at night, over-excitability and weeping."—*Hg*.

"The free use of strong Coffee is a specific for gout and rheumatism where there is a disposition to the formation of chalk-stones in the joints."—*Dr. H. Hamilton*.

"Convulsions of teething children, with grinding of teeth; cold limbs, and great excitement."—*Hg*.

Great sensitiveness to cold; chill predominating.

In delirium tremens, hypodermic injections of one grain of Caffeine have cured chronic insomnia from alcoholism.

In cardiac dropsy, a hypodermic injection of two grains of Caffeine acts with great rapidity as a diuretic.

Aggravation.—From excessive joy; noise; strong smells; open cold air; and from narcotic medicines.

Amelioration.—From warmth; during rest; evening until midnight.

COLCHICUM AUTUMNALE.

Meadow Saffron.

Habitat: Europe, etc. Tincture of the fresh bulb, Class I.

Antidotes.—Vinegar, Honey, Nux vom., Puls., Coce., Amm., Caust., Camph.

Through the cerebro-spinal nervous system, Colchicum has six special centers of action:

- I. GASTRO-INTES. C. *Viol't Emesis and Catharsis; Inflammat'n.*
- II. KIDNEYS. *Congestion; Inflammation; Phosphates Increased.*
- III. LIVER. *Congestion; Increased Biliary Secretion.*
- IV. FIBROUS TISSUE AND SER. MEMBS. *Rheumatoid Inflammat'n.*
- V. SKIN. *Diaphoresis; Hyperæsthesia.*
- VI. SPINAL CORD. *Hyperæsthesia; Convulsions; Paresis.*

Gastro-Intestinal Canal.—This is the grand center for the action of Colchicum; and but few remedies equal it in action upon the secretory organs of the gastro-intestinal tract. Stille says: "When small doses of Colchicum have been used for several days in succession, heat is felt at the epigastrium, with eructations and perhaps nausea. If continued, the appetite fails, the tongue becomes coated, there is some colic, with borborygmi and diarrhœa. Still larger doses excite vomiting and purging. When one to four drachms of the tincture were given in the course of twenty-four hours, its most uniform effects were nausea, vomiting, borborygmi, colic, and diarrhœa. The vomited matters were usually bilious; the tormina and tenesmus were sometimes severe and incessant, with heat and smarting of the anus, and dysenteric stools. That is to say, the stools, after being colored with bile, became serous and contained white specks, yellowish and bloody mucus, a solid, reddish substance (fibrine), and sometimes blood. In fact, they had the character of dysenteric stools. It was also found that effects of this sort were more common when the intervals between the doses were short. It is singular, that, in spite of these severe symptoms and the nature of the discharges, which seemed to indicate intestinal inflammation, there was still no tenderness of the abdomen under pressure, and the evacuations

ceased soon after the suspension of the medicine. It may be that *Colchicum* tends rather to produce an exaggerated activity of the vascular and secretory elements of the bowels, than to operate as a direct and local irritant. In this connection, it should be borne in mind that the action upon the bowels is manifested even when the medicine is introduced by the veins."

Schroff took one-hundredth of a grain of *Colchicia*. "It produced eructations, nausea, and salivation. In two hours the pulse fell eleven pulsations. Eight hours afterward, two one-hundredths of a grain were taken in water. At the end of six hours, while in bed and asleep, he was awakened with a desire to go to stool, and on rising, vomited for two minutes, and had a soft and copious stool, with violent griping. These symptoms returned some hours afterward, and the stools were mucus, and of a greenish-yellow color. They did not immediately occur; but there was complete anorexia for several days, during which the stools were thin, flocculent, and albuminous, accompanied with griping, and tenderness of the abdomen, with thirst, fever, accelerated pulse, cerebral distress, agitation, and want of sleep. The urine was thick and gave a copious white deposit."

In poisonous doses, *Colchicum* gives rise to symptoms of a very violent description, which are apt to terminate in death. The following is an analysis of ten cases, produced by the tincture, seeds, infusion of the bulb and leaves, in quantities of from one to two ounces, the patients, all but two, being adults: "Pain in the abdomen is described in about half the cases, but not as very severe in more than two. Its character was usually griping; it was generally one of the first symptoms to appear, and occurred at various intervals from half an hour to one hour after the poison had been taken. Sometimes it was spasmodic, and was accompanied with cramps of the abdominal muscles. The epigastrium is said to have been slightly tender upon pressure in one case, and in two is expressly stated to have been indolent. In the rest, this symptom is not mentioned, and must, therefore, be supposed to have been slight. Vomiting was a prominent symptom in every case; it occurred among the earliest symptoms and was the most persistent of them all. The fluid thrown up consisted of bile and mucus, sometimes tinged with blood; in one case a substance like coffee-grounds was rejected. Retching alternated with actual vomiting. In only two cases is the thirst said to have been great. Diarrhœa occurred in every case; the stools were generally frequent, liquid, greenish, or black and fetid, or containing shreds and flakes as of coagulated mucus; tenesmus occurred in one or

two cases, and in one, at least, the discharges became involuntary. The other symptoms furnished by the digestive organs were subordinate and not uniform. Thirst was by no means urgent, except in one case, in which there was burning of the mouth, and difficulty of swallowing. In another case, the taste was normal, and the tongue blue and cold. The quantity of urine was generally unaffected. In only two cases diuresis is mentioned, and in two suppression of urine."—*Stille*.

On animals, the action of Colchicum is very similar to that upon man. *Stille* says, that, when eaten by cows in their fodder, it produces "bloody flux and death, with inflammation of the bowels. *Haden* mentions it purging a horse violently. Given to dogs by *Storek*, it caused vomiting, trembling of the limbs, convulsive movements of the belly, howling, diuresis, bloody stools, prolapse of the rectum, and death. The effect on six cows that had eaten the Colchicum plant was as follows: Loss of appetite, and thirst; chewing the cud was suspended; diarrhoea of a thin, whitish liquid took place; the anus gaped; frequent, feeble pulse; running at eyes and nose; dullness of the senses; distention of the belly, and scanty urine; the hair stood erect and rough, and there was tenderness on pressure over the maw. One of the cows and calf died; the lining membrane of the intestine was found injected and red, and the blood dark and liquid."

One of the most prominent symptoms of its action upon cows is that the abdomen becomes enormously distended with gas, and the animals sink into a half-stupid state.

Pathological Changes.—In animals, the mucous membrane of the intestines is everywhere injected, especially the jejunum and ileum are violently inflamed, and the bowels lined with mucus and filled with bloody serum. In some dogs, the whole mucous membrane, from the stomach to the anus, was violently inflamed.

In man, the chief changes are in the intestinal canal; the mucous membrane is much swollen, intensely congested, sometimes ecchymotic, or with blood free in the intestines; the stomach is not quite so much inflamed as the intestines. The heart and arteries are filled with black, tarry blood.

Urinary Organs.—*Dr. Hammond* found that the organic and inorganic solids were remarkably increased by Colchicum. In doses of one to two grains of *Colchicine*, given to dogs, "it caused gastro-intestinal inflammation, with frequent and ineffectual attempts to urinate, and the animals died in from eight to eleven hours. Besides marks of intense inflammation of the mucous

membrane in the stomach and intestines, the Malpighian bodies of the kidneys were very red and highly congested. Black, pitchy blood was found in the heart, the veins, and aorta and other arteries.

"Chelius found that during its use the proportion of uric acid in the secretion was nearly doubled. Dr. Christison found similar results in the proportion of *urea* and *urate of ammonia*, raising the specific gravity of the liquid to 1.034. These results are not uniform, since both Graves and Gardiner found the urates to diminish under the use of the medicine. Perhaps these opposite results may be reconciled by those of Bocker, who concluded from some experiments, that Colchicum acts but little on the amount of the urinary secretion, and that, when its solid elements decline under the use of the medicine, it is because those of the intestinal evacuations are increased. This accords with the results of Krahmer and Bird, but disagrees with those of Dr. Hammond's experiments upon a healthy person, in whom Colchicum produced an increased elimination of water as well as of solid matter, both organic and inorganic. Schroff found no increase either of the urine or of the elimination of the uric acid; and it is very certain that in poisonous doses it diminishes, and may entirely suppress, the secretion of urine, by its irritant action, probably, upon the kidneys. Thus Storck, having taken an excessive dose of Colchicum, suffered greatly from strangury, accompanied with scanty and scalding urine. In cases, too, of poisoning by Colchicum, the secretion of urine is often diminished; partly, it is true, in consequence of copious alvine evacuations, as well as on account of renal congestion."—*Stille*.

Liver.—In dogs, Colchicum greatly increases the biliary secretion; which increases its cathartic action.

Cerebro-Spinal System (Especially Spinal).—"As shown by the elaborate experiments of Rossbach, the motor nerves and striated muscles are not affected; but the higher nerve centers, the spinal cord, and the peripheral sensory nerves suffer palsy. The same observer found that the circulation was very little influenced, that the pneumogastrics were not affected until near death; that the splanchnic and intestinal vagi escaped altogether. In no case do reflex spinal convulsions occur at any time. Nervous symptoms have been prominent in some of the severe cases. In one instance, it is said, a feeling of numbness or prickling was complained of by the patient; but this seems to be not

common. Spasms are very frequent, and sometimes convulsions, which may be fatal; muscular pains are not rarely experienced, in some cases replacing the spasms; and probably in all other cases coincident with them there is great muscular weakness, amounting, as death approaches, to paralysis. Consciousness is preserved to the last."—*H. C. Wood, M.D.*

Stille gives a case of a large dose in a child four years old, in which there were "no decided spasms, but only muscular pains; and she lay with half-closed eyes, breathing hurriedly, protruding the tongue with difficulty, and evidently died from sheer exhaustion. Muscular pains accompanied the cramps, and continued in the intervals. Once there was pain in the knee, and once in the spine. In a boy six years old, there were exceptional phenomena, depending probably upon some cerebral lesion, from which the patient died at the end of forty-eight days. (No post-mortem.) The symptoms were: Trembling; extreme sensibility; pains in both fore-arms; dilated pupils; convulsions; opisthotonos and rolling of the head, deafness; swelling of the elbow and knee joints of the left side; hemiplegia of the right, and convulsions of the left side. In all, or nearly all, the cases, the *mind was clear* throughout the illness; there was no tendency to sleep, except from exhaustion; no illusions nor any perversion of the senses. The usual mode of death was by exhaustion, but once it came in a convulsive attack." The vertigo and headache are sympathetic from gastro-intestinal inflammation.

Skin.—If Colchicum does not act upon the bowels, it very generally will produce *diaphoresis* of the skin. Colchicia acts specifically upon the skin of toads, destroying its sensibility.

Periosteum and Fibrous Tissues.—Upon these tissues, including the *synovial membranes of the joints*, Colchicum has a specific action. Dr. Wurmb says: "This drug stands in close relation to the fibrous tissues; it produces, on the healthy, pains very similar to those of rheumatism; it excites a condition of irritation which is very closely allied to inflammation,—redness, swelling, heat, etc.; like rheumatic inflammation, this does not tend to supuration, and it easily and quickly changes its location. In the Colchicum fever, as in the rheumatic, the cold stage predominates, the sweat is very copious, etc.; the urine and sweat have an acid smell and reaction." Rheumatoid symptoms are prominent effects of Colchicum.

Therapeutic Individuality.

Arthritic or rheumatic diathesis.

Gout.—This is the true specific for this painful disease.

"The pulse is slightly irritated, the affected parts exceedingly painful; the skin looks rose-colored, and a white spot remains after pressure by the finger."—*Stille*.

"In warm weather, the tearing pains are principally felt at the surface of the body; as the air grows colder they seem to penetrate the deeper tissues and the bones."—*Teste*.

"Rheumatic pericarditis, and rheumatism in the small joints; rheumatic pains that frequently change about; they are of a tearing nature, and generally in the muscles."—*Hah*.

Allopathic authority says Colchicum is suitable only in persons of vigorous constitution, and in whom the manifestations of the disease are acute and active, or only approaching the sub-acute, and caution against the asthenic form.

"Debility and paralytic weakness is very suggestive of the asthenic type; and it is in precisely this form of asthenic, sub-acute gout that Colchicum is truly indicated, and does real service; and there is no danger whatever of reducing the patient. I do not think it safe to give, in a well-marked Colchicum case, a larger dose than the 15th potency."—*D*.

Sub-acute and chronic rheumatism, affecting the joints, with calcareous deposits, muscular weakness, and paralytic symptoms; diminution of vital heat, and great vital atony.

Dropsical effusions in gouty or rheumatic people.

Digestive Organs.—Arthritic or neuralgic inflammation of the intestinal canal, where the mucous membrane is principally involved.

"Sudden sinking of the vital forces; if the patient is raised up, the head falls backward and the mouth opens to its widest extent."—*Raue*.

No appetite; great thirst; aversion to food, loathing the sight and still more the smell of it.

Cold breath and tongue, with mottled skin.

Frequent and copious eructations of gas.

"Nausea with great restlessness; on assuming the upright posture, great inclination to vomit."—*D*.

"Violent retching, followed by copious and forcible vomiting of food and then bile. If the patient lie perfectly still, the disposition to vomit is less urgent; every motion renews it."—*D*.

"Sero-mucous vomiting, and rice-water stools, thrown off with great force, with cramps of the abdominal muscles, flexors of the arms and feet, and sunken features."—*Hg.*

Epigastrium extremely sensitive to pressure, icy cold with colic.

Abdomen.—Immense distention of the abdomen with gas.

"Pressing, tearing, cutting, and stitching pains in the abdomen. Great distention of the abdomen with gas, feeling as if the patient had eaten too much. More in upper part."—*D.*

If there is copious salivation and diuresis, the stool is scanty; but, if the glands and kidneys are not much involved, there are copious, frequent watery or bilious stools, often with some colic.

Stools of mucus and blood, with great tenesmus.

Green, watery, very offensive mucus; the stools being involuntary.

Malignant dysentery, stools fetid, with great prostration, and excessive distention of the abdomen.

Spasmodic pains in the sphincter ani.

Urinary Organs.—Urine dark and scanty, discharged in drops; depositing a whitish sediment; or copious watery urine.

"Bloody and burning urine, resembling brick-dust, with rheumatic pains in the lumbar region, extending down the thighs."—*Dr. J. W. Reynolds.*

Generalities.—The pains are drawing, tearing, pressing, frequently in the occiput, deep in the cerebellum; aggravated by slight mental exertion.

"The weakness is very great; the whole body is sore and sensitive; there is a sensation of trembling throughout the body; all the muscles of voluntary motion, but especially those of the arms and legs, are paralyzed; the knees strike together, and the patient can hardly walk."—*D.*

Distressing, jerking, sticking shocks of pain.

Dry, hacking cough, with burning and feeling of constriction across the chest.

Great sleepiness during the day, with confusion of the mind; at night can not sleep for pain; has frightful dreams.

Aggravation.—The pains are greatly aggravated at night; from mental exertion or emotion.

Amelioration.—During repose, and inspiration.

COLLINSONIA CANADENSIS.

Stone Root.

Habitat: North America, etc. Tincture of fresh plant and root, Class III.

Through the spinal and hypogastric nerves, Collinsonia has three special centers of action:

- I. GASTRO-INTESTINAL CANAL. *Portal Congestion; Hæmorrhoids.*
- II. KIDNEYS. *Increased Blood-Pressure; Diuresis.*
- III. CIRCULATION. *Heart Tonic. (VEINS.) Varicosis.*

Digestive Organs.—Collinsonia affects the whole gastro-intestinal canal, its action especially centering upon the rectum. This action, we believe, is due to its effects upon the portal system, through the inferior mesenteric plexus of the abdominal sympathetic. Through this, the caliber of the portal veins is contracted throughout the system, those of the rectum especially being affected; followed by dilatation and varicosis of the veins; constipation and hæmorrhoids from inertia and congestion of the portal system. It also produces nausea with great faintness; griping pains in the hypogastrium; flatulence; bilious and mucobloody stools; tenesmus with great faintness; with prominent hepatic symptoms. We know but little about this most valuable remedy.

Urinary Organs.—The action of Collinsonia upon the kidneys is to increase the blood-pressure, and then cause diuresis. Jones and Scudder think highly of it as a diuretic. It is also a reputed *lithotriptic*. Prof. Lee believes it to be a valuable alterative in chronic diseases of the genito-urinary organs. In chronic renal diseases, this remedy should be studied.

Its action upon the generative organs, especially in women, we believe to be from sympathy from its action upon the rectum.

Heart.—This remedy seems to have a marked action upon the heart. Dr. Hale says: "I believe it acts on the heart in two ways; (1) by removing obstructions or irritations in the liver, portal system, or kidneys, and (2) by increasing its muscular

tonicity, in the same manner that it increases the tone of the muscular fibers of the stomach, intestines, and blood-vessels."

From its action upon the portal veins, it must act on the venous side of the heart.

Therapeutic Individuality.

Bowels and Rectum.—Constipation, stools lumpy and light colored, with straining, and dull pain in the anus.

No known remedy can equal this for old, obstinate cases of hæmorrhoids. I have cured many such cases by giving one and two drop doses of the *tincture* morning and night until cured. The attenuations might do the same, but I doubt it. I have cured hæmorrhoidal tumors as large as my thumb, where the patients have been obstinately constipated, in a few weeks.

"Severe weight in the rectum, with an intense irritation, itching, and a sensation in the rectum as if sticks, sand, or gravel had lodged there."—*Hale*.

"It is in constipation and hæmorrhoids from congestive inertia of the lower bowel, that *Collinsonia* proves such a precious remedy, especially in the latter months of pregnancy."—*Hughes*.

The grand sphere for *Collinsonia* is in neurosis of the bowels, where pain is one of the most prominent symptoms, and especially in diseases of the rectum, such as constipation, hæmorrhoids, diarrhœa, dysentery.

"In large doses, it irritates the rectum so much as to set up a diarrhœa, soon running on into dysentery. It has not been used to any extent in complaints of this kind; but in proctitis and rectal dysentery it should rival aloes."—*Hughes*.

The pathological condition, or key-note, for the use of this remedy, I believe, is passive congestion, with hæmorrhoids. With all diseases curable with this remedy, let them be urinary troubles or uterine troubles, hæmorrhoids and constipation will be associated.

In chronic diarrhœa, it has given me excellent results.

Stools are all preceded and followed by severe pains in the hypogastrium.

Severe colicky pains in the hypogastrium every few minutes, with fainting; has to sit down to get relief.

"Pains in the epigastrium, in constipation and piles."—*Dr. G. W. Barnes*.

Stools of mucus, or mucus and blood, or pure blood, with more or less tenesmus.

Copious watery stools, with nausea and fainting.

Lungs.—"Hemorrhages, blood dark and tough, enveloped in viscid phlegm; previous discharge of blood per anum, subsequent costiveness."—*Dr. Siebold.*

Sexual Organs, Female.—Various diseases of the female generative organs, when the rectal symptoms are prominent.

Pruritus vulvæ, probably due to acid urine, has been often cured by this remedy. Dr. Hale says it is due to varicosis.

It has seemed to act favorably in membranous dysmenorrhœa.

Dysmenorrhœa associated with hæmorrhoids, and constipation.

Heart.—In cardiac diseases, when hæmorrhoids and constipation are the most prominent symptoms, this remedy has proved of great service.

Irritable heart, with rapid and irregular beating, greatly aggravated by motion and excitement; attacks of syncope; faintness; dyspncea and great prostration.

Generalities.—"What Sepia is to chronic diseases, Collinsonia is to the acute."—*Hale.*

Varicosis of any part of the body.

Aggravation.—Afternoon, evening, and in the open air.

Amelioration.—Warm air, and by rest.

Collinsonia in 7th. 1841.

COLOCYNTHIS.

Bitter Cucumber.

Habitat: Asia, Africa, etc Triturations, Tincture of the dried fruit, Class IV.

Antidotes.—Camph., Cham., Coff., Staph., Caust., Op., Milk, Infusion Galls.

Through the cerebro-spinal and abdominal sympathetic nervous systems, Colocynth has four special centers of action:

- I. GASTRO-INTESTINAL CANAL. *Violent Hydragogue Cathartic.*
- II. MUCOUS MEMBRANES. (INTESTINES.) *Violent Inflammation.*
- III. SEROUS MEMBRANES. (PERITONEUM.) *Inflammation.*
- IV. SPINAL C. (POSTERIOR.) *Hyperæsthesia. Violent Neuralgia.*

Abdominal Viscera.—Through the celiac plexus, and sensitive filaments of the vagi, Colocynth has a specific and powerful action upon the mucous membrane and muscular fiber of the intestinal canal, and, through its action on the intestinal glands, is one of the most powerful cathartics known. "According to Orfella's experiments on dogs, this substance purges, inflames the lower bowels, and at the same time depresses the nervous system. In rabbits, four to seven grains of *Colocynthine* proved fatal in four hours, after producing copious fluid dejections. The gastro-intestinal mucous membrane was found to be highly inflamed. . . .

"In small or moderate doses, Colocynth quickens the peristaltic action of the bowels, and augments their secretion and also that of the liver. The stools are mucous and watery, and accompanied with colicky pains. A pregnant female who took a teaspoonful of the tincture, was seized with a dysenteric flux, a burning pain in the loins, swelling of the vulva, and a sense of bearing-down and heat in the vagina. . . .

"In large doses, Colocynth acts as a violent irritant poison. Murray relates several cases in which the effects produced were excruciating pain in the abdomen, vomiting, mucous, serous, and bloody stools, with muscular spasms. In one case recorded by Caron and d'Anneey, Colocynth produced frequent stools, with tormina, and, some hours afterward, intolerable heat in the abdo-

men, dryness of the throat, and intense thirst. Later, signs of peritonitis supervened, a small and frequent pulse, red tongue, tumid and tender abdomen, severe pain near the umbilicus, and suppression of the stools. On the third day, these symptoms were succeeded by the collapse of approaching dissolution, which took place on the same night. The peritoneal cavity was found to contain much serum and fibrine, and the intestinal mucous membrane was ulcerated. Dr. Christison quotes the case of a female who died, after incessant vomiting and purging, within twenty-four hours after having swallowed by mistake a spoonful and a half of Colocynth powder."—*Stille*.

Violent purgation may be induced by rubbing the abdomen with the tincture of Colocynth, showing that the drug has a special affinity for the abdominal cavity.

Dr. Hughes says: "It seems most probable that it purges the lower bowel only, as the rectum is the only part of the alimentary tract found inflamed when a poisonous dose is injected into a vein. Under such circumstances, there is no manifest irritation of the stomach.

"The vomiting which has been observed as a consequence of its external application would appear to result from an influence upon the (gastric) nerves. Still more certain evidence of such an influence is the severe colic which always accompanies the purgative action of Colocynth, and which is more marked with it than with any other cathartic. (See *Dioscorea*.) The pain is generally about the umbilicus, is of a twisting and burning character, increased by food, and relieved by the diarrhœic evacuations. Tenesmus also is a constant feature of the Colocynth diarrhœa. In one case of poisoning by it, the intestines were glued together by recent lymph, showing its power to inflame the peritoneum."

It acts especially upon that portion of the peritoneum which covers the ovaries.

Spinal Symptoms.—"The colic and diarrhœa so characteristic were experienced by all the provers. But in most of them other symptoms appeared, showing the power of the drug to act upon the nervous trunks on the surface as vigorously as upon the abdominal plexuses. The trigeminus is not uncommonly affected, causing toothache and hemicrania. But the nerves about the hip-joint suffer most severely, the pain darting down the anterior crural, and sometimes down the sciatic trunks, even to the foot. The spermatic and ovarian nerves are also affected,—the only

two provers of the female sex complaining of deep stitches as from a needle in the ovaries; in the male, pain and swelling of the testicles and spermatic cord."—*Hughes*.

Therapeutic Individuality.

"The grand sphere of Colocynth lies among the neuroses, especially where pain is the most prominent symptom. It is in colic and sciatica that its greatest triumphs have been achieved."—*Hughes*.

Adapted to neurosis of the bowels in choleric temperaments.

Digestive Organs.—Agonizing pain in the abdomen, causing the patient to bend over double, with great restlessness, moaning, and lamenting.

"Severe colicky pains, mostly around the navel, has to bend double, being worse in any other posture, but with great restlessness and loud screaming on changing it; worse at intervals of five or ten minutes."—*Hg.*

"Colic so distressing that they seek relief by pressing corners of tables or heads of bed-posts against the abdomen."—*Hg.*

"Child writhes in every possible direction; doubles itself up and screams in great distress; it cries very hard."—*G.*

"Feeling in the whole abdomen as if the intestines were being squeezed between stones."—*G.*

Agonizing colic brought on by cold, wet feet.

Much distress and distention of the abdomen, with diarrhœa, which is aggravated by everything eaten or drank.

"More cutting pains in the bowels than tenesmus; with great tenderness of abdomen to contact; desire to bend double."—*G.*

Inflammation of the bowels, the intestines glued together by fresh formation of lymph.

"Dysentery where the disease is located in the small intestines; stools slimy, bloody, like scrapings; during stool, sometimes tenesmus, at other times not; after stool, relief of the pain."—*Hughes*.

"Bloody diarrhœa, with violent pain in the bowels, extending down the thighs."—*G.*

"Dysentery-like diarrhœa, renewed each time after taking food or drink."—*Hg.*

"Chronic watery diarrhœa in the morning, with pain in the sides of the abdomen."—*Raue*.

Green, watery diarrhœa after indignation, with bitter taste in the mouth.

The abdominal pains that are relieved by Colocynth are of a griping, intermittent character, often shifting from place to place, and of a rheumatic type.

Bitter taste, with vomiting of mucus, bile, and food.

Urinary Organs.—"Urine viscid; looks like, and has the consistency of, thin glue."—*G.*

"Urinates small quantities, with urging; fetid, thickening, viscid, jelly-like urine."—*Hg.*

"Dysuria, straining ineffectual; worse before, during, and after urination, which is scanty."—*Hempel.*

Sexual Organs, Female.—Cramp-like pains in the left ovarian region, as though the parts were squeezed.

Intense boring pains in the ovary, causing her to bend double.

Head.—Neurosis of the fifth nerve.

"Neuralgia of the face, tensive tearing, with heat and swelling, especially left side; motion and touch increase the pain; better from rest and warmth."—*Raue.*

"Cephalic pain, tearing, screwing together, with great restlessness and anxiety."—*Raue.*

"Does not like to talk, to answer, to see friends."—*Hg.*

Anger and indignation produce vomiting, colic, and diarrhœa.

Depressed, joyless, and irritable.

Rheumatic pains in the eyeballs.

Generalities.—"The nerves about the hip-joint suffer most severely; the pain darting sometimes down the anterior crural, sometimes down the sciatic trunks, even to the feet."—*Hughes.*

"Sciatica, where the pains are of a shooting and cutting kind, that run like lightning from the hip to the knee, or even to the heel, affecting the right side more than the left; greatly aggravated at night; in neuralgic subjects."—*R. Ludlam.*

"Acute cases only, with sensation as if from an iron band around the hip; of but little or no service in chronic cases. Pains in the limbs; worse from slight touching, and then increasing gradually."—*Hg.*

"It appears to me to be the rheumatic, or gouty-rheumatic diathesis. The character of the pain, the fact that the joints are all prominently affected, that in the extremities motion so generally increases the suffering, that aggravation of it is so readily

induced by cold and damp weather, all seem to indicate a dyscrasia of a rheumatic nature."—*Dr. Pope.*

Tendency of the muscles in all parts of the body to become painfully cramped.

Aggravation.—From mental trouble, anger, mortification; at night, from motion, and at rest.

Amelioration.—Lying with the head bent forward, and bent over double; hard pressure; from coffee, and smoking.

CONIUM MACULATUM.

Poison Hemlock.

Habitat: Europe, Asia, etc. Tincture of fresh flowering plant, Class I.

Antidotes.—Camph., Coff., Nit. ac., Spir. nit. dulc.

Through the cerebro-spinal nervous system, Conium has six special centers of action:

- I. CEREBRO-SPINAL S. *End Organs Paralyzed; Musc'r Paresis.*
- II. EYES. *Mydriasis. Oculo-Motor Paralysis.*
- III. URINARY O. *Urine Viscid; Sphincter Vesicæ Paralyzed.*
- IV. CIRCULATION. *Arterial Blood-Pressure Lessened.*
- V. TEMPERATURE. *Lessened.*
- VI. GLANDULAR SYSTEM. (MAMMÆ, OVARIES, TESTES.) *Atrophied.*

Motor Nerves.—Through the motor nerves, Conium acts upon the *muscular system*. "The combined results of numerous experiments very clearly indicate that Conia is a *nerve-poison*, with definite and singularly limited affinities. It is one of the most powerful poisons discovered; yet it operates within a very limited sphere. Normal, that is unmodified, Coniine acts as a pure paralyzer. Upon the motor system, it operates through the nerves alone, leaving the spinal cord intact. Small doses act exactly like Curare, viz., upon the nerve-terminals alone; but larger doses affect also the motor trunks. The hind limbs are paralyzed first; but the whole system of voluntary motor nerves

is ultimately affected, and death comes by cessation of respiratory movements."—*D. F. Phillips, M. D.*

Dr. Bartholow says: "The action of Conia is primarily and chiefly on the end organs of the motor nerves; the nerve-trunks next lose their excitability, and by an extension of paralysis the spinal cord is at last involved. The muscular irritability remains unaffected."

Dr. H. C. Wood says: "The chief symptoms produced in man by Conia, in doses just large enough to impress decidedly the system, are as follows: Great muscular weakness or languor, with some disorder of vision, and giddiness. On attempting to walk, the patient suffers from a feeling as though his feet were made of lead, and he staggers or falls, from the refusal of his knees to support him. There is an intense desire to lie quiet in the horizontal position; and, as the eyelids are especially affected, the eyes are kept shut. In some subjects, these symptoms are preceded or accompanied by burning in the mouth or fauces, nausea and even vomiting, besides heat of head, often with a sense of weight or pressure, or even severe frontal pain. The disorder of vision is apparently due in great part to a sluggishness and finally to paralysis of accommodation. All observers agree that the chief symptom produced by Conia (i. e., the paralysis) is not due to any direct influence upon the muscles, which, indeed, preserve perfectly their contractility up to death. Kolliker, in 1856, announced that the failure of motion in Conia-poisoning is due to a direct action of the Alkaloid upon the *efferent* or *motor nerves*. He first experimentally found, that, in frogs killed by the drug, the application of the galvanic current to a nerve fails to induce contractions in the tributary muscle. He then tied the aorta in such a way as to cut off the supply of blood to the hind extremities, and found, that, after voluntary motion had ceased in the forelegs, and even after galvanic stimulation of the anterior nerves had lost its influence upon the muscles directly supplied by those nerves, irritation of the same anterior nerves produced reflex contractions in the hind legs, showing that the anterior afferent nerves and the spinal cord still retained functional activity after the loss of it in all those efferent nerves reached by the poison. Very many experimenters have confirmed the above results; and it may be considered settled that Conia is a paralyzer of efferent or motor nerves, and that it is the peripheral ends that are primarily affected, and not the trunks."

The poisoning of Socrates, described in the *Phædo* of Plato, is a fine illustration of the effects of Conium: "Socrates, having

walked about, when he said that his legs were growing heavy, lay down on his back; for the man so directed him. And at the same time he who gave him the poison, taking hold of him, after a short interval, examined his feet and legs; and then, having pressed his foot hard, he asked if he felt it. He said that he did not. After this, he pressed his thighs; and thus going higher, he showed us that he was growing cold and stiff. Then Socrates touched himself and said that when the poison reached his heart he should then depart. But now the parts around the lower belly were almost cold; when, uncovering himself, for he had been covered over, he said (and they were his last words): 'Crito, we owe a cock to Æsculapius; pay it, therefore, and do not neglect it.' . . . Shortly after, he gave a convulsive movement and was gone."

Sensory Nerves.—It is generally believed that Conia has little or no influence upon the afferent nerves; "but Lautenbach affirms that by a large number of experiments he has shown that it impairs very greatly the functions of the peripheral afferent nerves. M. Gubler called attention to the action of Conium in benumbing cutaneous sensibility, detailing a case where temporary loss of sensation was produced in the hand by rubbing a cancerous tumor with the extract." (Wood.) The action of Conia upon the posterior portion of the cord is not fully settled.

Brain.—Dr. Harley says: 'Conia affects chiefly the corpora striata, and other centers at the base of the brain, supposed to mediate between the will and the spinal cord, acting as a paralyzer of these cranial motor centers.' Schroff states that the poison, soon after it is taken, is followed by a sensation of heaviness in the head; giddiness; inability to think; great impairment of common sensibility; blunted taste; dimmed sight; dilated pupils, and a sensation of insects crawling on the skin. This shows that the mind is evidently weakened. It is related that asses which feed upon the plant fall into so deep a stupor that they have been taken for dead, and even half flayed before the mistake of the operators was discovered. An insane person took twenty-five grains; it produced such a fullness in the head as might be caused by a ligature around the neck, with vertigo."
—Stille.

"According to the experiments of Lautenbach, the convulsions of Conia-poisoning are cerebral, since in a number of cases, after division of the cord, they were confined to those muscles supplied by nerves arising from that portion of the spinal marrow above

the section. The retention of consciousness so late in the course of poisoning by Conia, proves that the drug has but little influence upon the cerebral hemispheres."—*Wood*.

Eyes.—Dr. John Harley took five and a half drachms of *Sucus Conii*. "Three-quarters of an hour afterward, disorder of vision suddenly came on. It was a feeling of giddiness induced by shifting the eyes from one object to another. So long as the eyes were fixed upon an object, the capacity of vision for, and the definition of, the minutest objects were unimpaired; but the instant the eyes were directed to any other object, all was haze and confusion; and, in order to remove those effects, it was necessary to arrest the eyes upon a given object and there retain them with a fixed gaze. At the end of an hour, this derangement of the muscular apparatus of the eye, was much increased, and the implication of the third nerve was still further indicated by great dilatation of the pupils, and approaching paralysis of the levator palpebræ muscle. It now required considerable effort to raise the eyelids, and a general muscular lethargy rapidly spread over the body."—*Stille*.

Dr. H. C. Wood says: "The pupil is generally dilated by Conia. The ptosis of Conia-poisoning indicates that the dilatation of the pupil is due to oculo-motor paralysis. The known action of the drug upon nerve-trunks indicates that this paralysis is peripheral."

Urinary Organs.—"One of the earliest signs of its operation is an increased viscosity of the urinary secretion; and sometimes the perspiration is augmented. The urine is said to be more abundantly secreted, to smart a little when voided, and, on standing, to deposit a glairy sediment, and to exhale a nauseous smell."—*Stille*.

"Although Harley failed to find Conia in the urine of animals poisoned by it, yet it is eliminated by the kidneys, in whose secretion Zaleski and Draggendorff have found abundance of it in the first twelve hours of the poisoning, and traces of it for two days and a half."—*Dr. H. C. Wood*.

From the great difficulty in voiding urine, it must produce paralysis of the sphincter vesicæ, as shown by the urine flowing and stopping again and again during urination.

Circulation.—Lautenbach states that the pulse is at first accelerated, but soon falls to much below normal; and the arte-

rial pressure falls immediately after the injection of Conia, but afterward rises far above the normal point.

Damourette and Pelvet claim to have demonstrated that Conia occasions a destructive alteration of the red blood-disks, and prevents the coagulation of the blood, rendering it dark and fluid.

Most experimenters, prominent among whom is Dr. Ringer, believe that Conium affects the blood and vascular system but slightly.

Temperature.—"Verigo, Von Pragg, and others affirm that lethal doses of Conium cause a decided lowering of temperature; Bartholow affirms the same; but Lautenbach asserts that the drug decidedly increases the temperature, both when in therapeutic and in toxic doses."—*Dr. H. C. Wood.*

Glands.—Conium continued for a long time, produces wasting of the mammæ and testicles, loss of venereal desire, and probably acts specifically upon the ovaries, as shown by scanty menstruation, etc.

Therapeutic Individuality.

Conium is adapted to the debility of old people, to diseases caused by a blow or fall; and to cancerous, scrofulous people, with tight, rigid fiber.

"Particularly suitable for women, with tight, rigid fiber, and easily excited, as well as for those in the opposite condition."—*G.*

"It is a genuine anti-scrofulous medicine, reducing swollen glands, and especially removing the photophobia of strumous ophthalmia."—*Hughes.*

Head.—"Much troubled with vertigo, particularly when lying down and when turning over in bed."—*G.*

Vertigo at the climacteric, with paralysis of the sphincter vesicæ, and frequent hot flashes.

"Dreads being alone, but avoids society."—*Lippe.*

Great concern about little things; very easily excited.

Easily intoxicated.

Hypochondriacal, morose, and out of humor.

Vertigo, like turning in a circle; worse when lying down; as though the bed were turning in a circle; the least motion, as turning over in bed, greatly aggravates.

Pain in the occiput with every pulsation, as if pierced with a knife; or as if the head were too full of blood.

Eyes.—In superficial inflammations of the eye, with pustules upon the cornea (keratitis), excessive photophobia, and slight discharge of mucus and pus, Conium is of great value.

Ptosis and indurations of the lids have often been cured by Conium. Very important in paralysis of the muscle of the eyes.

Cataract from contusion; sight sluggish.

Asthenopia, with excessive hyperæsthesia of the retina; can not bear light or heat; want of accommodation; muscles paralyzed.

Digestive Organs.—"Frequent sour eructations, with hardness and distention of the abdomen."—*G.*

Black crusts upon the lips and teeth.

"Vomiting that looks like black coffee-grounds."—*G.*

"Terrible nausea in women having scirrhusities during pregnancy."—*G.* [Acrid dejections.]

"Stitches extending from the abdomen to the right chest."—*G.*

"Frequent stitches in the anus between stools."—*G.*

Constipation, with constant and ineffectual urging to stool, with vertigo while lying down.

Chronic jaundice, in disease of the liver, with much aching in right hypochondrium.

Hypochondriasis from abstinence from sexual intercourse.

Urinary Organs.—"One of the leading characteristics of this remedy is, "Much difficulty in voiding urine; it flows and stops again, then flows and stops again, at each emission."—*G.*

Sexual Organs, Male.—Induration of the testicles.

Impotence; weakness of the sexual power; frequent emissions without erections; sexual organs very irritable.

Sexual Organs, Female.—"Aching pain in the abdomen during pregnancy; is disturbed between twelve and three o'clock at night, having to get up to urinate; has no affection for anybody."—*J. C. Morgan, M. D.*

"It has a specific action upon the female breast, dissipating its engorgements and tumors, and relieving its pain."—*Hughes.*

"It has hardly less influence on the ovaries, and on their homologues, the male testes. It is often beneficial in scanty menstruation and unready conception in the one sex, and in deficient virility in the other, resulting from passive engorgements of these organs."—*D.*

Induration of the os and cervix; acrid leucorrhœa; vagina excoriated.

"Soreness and swelling of the breasts preceding menstruation."—*G.*

Great soreness of mammæ preceding menstruation, aggravated by the least jar, or walking, is a sure key-note for Conium.

Induration of the breasts, hard as a stone (traumatic).

"Shriveling of the mammæ, with increased sexual desire."—*G.*

"The breasts swell, become hard and painful before the menses, when her hysterical symptoms increase greatly; the vertigo when lying down becomes very severe."—*G.*

"Induration and enlargement of the ovary."—*G.*

"Conium is a valuable special narcotic to the genital organs when we have uterine colic, connected with leucorrhœal flow; menstrual tympanitis; aching pains in the hypogastrium, like menstrual colic."—*R. Ludlam, M. D.*

Burning, acrid, pungent leucorrhœa. In withered-up people. Menses suppressed, too late and too scanty.

Burning, aching, sore pain in the region of the uterus.

Stinging pains in the neck of the uterus, with rigid os.

During the menses she has stinging pains in the neck of the uterus, and vertigo while lying down.

"Prolapsus uteri, complicated with induration, ulceration, and profuse excoriating leucorrhœa."—*G.* [Cancer.]

"Violent itching of the vulva, followed by pressing-down of the uterus."—*G.*

Eruptions on the vulva, with much itching from acid leucorrhœa.

Chest.—"Cough, periodical, dry, excited by itching, grating, tickling in the throat and behind the sternum; it comes in short bouts, and is especially evoked by lying down, talking and laughing."—*Hirschel.*

The irritation to cough lies in the larynx or bronchi.

Nervous bronchial asthma, with hard, dry, spasmodic cough.

"Hacking, almost continued cough, worse at night, when lying down."—*Hughes.*

This is one of my most useful remedies for dry cough.

"Spasmodic, dry, teasing cough, worse in the evening and at night, greatly fatiguing the patient in sub-acute bronchitis."—*D.*

Skin.—Yellow skin, with want of action.

Petechiæ in people who are prematurely old, with rigid fiber.

Bloody, fetid, ichorous ulcers, after contusions.
Offensive, fetid sweat, in dried-up old maids.

Aggravation.—At night, during rest, the cough and the dizziness are sure to be aggravated by lying down, or rising up in bed, looking around, and from cold air.

* **Amelioration.**—From continued moving; in the dark, and in dry, warm weather.

COPAIBA.

Copaiba Balsam.

Habitat: South America, etc. **Tincture,** two parts of the Balsam to nine of Alcohol.

Antidotes.—Belladonna, Mercury, Cantharis, Camphor.

Through the cerebro-spinal system, Copaiba has four special centers of action:

- I. MUCOUS MEMBRANES. *Inflammation; Mucorrhœa.*
- II. DIGESTIVE ORGANS. *Slow Digestion; Intestinal Catarrh.*
- III. SKIN. *Urticaria; Roseola; Macule; Œdema.*
- IV. CEREBRO-SPINAL SYSTEM. *Convulsions; Paresis.*

Mucous Membranes.—Copaiba acts upon all the mucous membranes, especially affecting that of the urinary organs. Dr. Hughes says: "It is generally acknowledged that it acts as an irritant, the influence being strongest in the urethra, and becoming weaker as it ascends toward the kidney. Even on the latter, however, it acts sometimes as a potent diuretic, sometimes as a provocant of hæmaturia, But its urethral action is most marked. Sometimes the irritation travels along the seminal tracts, and the testicles become tender and swollen. Even rheumatism, according to Pereira, has been ascribed to the use of the Balsam."

Dr. Phillips says: "Should the dose have been unduly large, micturition becomes too frequent, and is preceded and followed by itching, smarting, and burning in the urethral passage, and during its progress is accompanied by heat and tenesmus, and even by hæmaturia and ischuria. The urine deposits a sediment

resembling albumen, which properly consists of vesical and urethral mucus."

Bartholow says, he has "reason to believe that desquamative nephritis and fibroid kidney have resulted from its free administration for a lengthened period. While small doses of the Balsam will increase the gross amount of urine and of the solid contents, large doses will actually cause a diminution in the amount both of water and solids, by setting up renal irritation; and in several instances albumen has been detected."

Digestive Organs.—This drug is a gastro-intestinal irritant. Phillips says: "Copaiba causes heat in the pit of the stomach, lessens the desire for food; gives rise to yellow-coated tongue, nausea, and retching, or eructations that possess the peculiar taste and odor of the medicine. When Copaiba can not be tolerated by the stomach, purging of the bowels often follows; the alvine secretions are often bloody, and attended by mucous discharges, also by a sense of burning in the region of the sphincter ani, and by violent tenesmus." Bartholow says, very serious injury may be done to the gastro-intestinal canal by large doses; gastro-intestinal catarrh has been produced, that lasted many months. In rabbits, the gastro-intestinal mucous membrane after death is not inflamed, but there is great destruction of the epithelium.

Respiratory Organs.—"The effects of Copaiba upon the respiratory tract are shown in its producing irritation in the larynx and bronchi; dryness in the larynx, huskiness in the chest; dry, painful cough, in connection with which there is expectoration of a semi-purulent, greenish, and nauseously smelling mucus."—*Dr. C. D. F. Phillips.*

Skin.—Copaiba has a marked action upon the skin, when the bowels are not much affected. The following case of poisoning illustrates its action finely: "From two tablespoonfuls of the oil, on the third day the whole body was œdematous, with a temperature of 104, pulse 140, small and feeble; body covered with reddish, smooth eruptions, studded with innumerable points of a deeper color; followed in two days by small vesicles on the face, hands, and feet. Desquamation and convalescence on the eighth day."—*W. A. Kennedy, M. D.*

It has often produced urticaria, maculæ, itching, and roseola.

Cerebro-Spinal System.—Large doses of Copaiba have produced alarming symptoms. Stille says: "In one case, temporary

hemiplegia was produced, which ceased upon the occurrence of a rubeoloid eruption; and in another an attack of convulsions terminated in like manner. Maestri observed a case, in which large doses produced rigidity of the muscles of the trunk, and partial paralysis of the facial muscles." Epileptic convulsions have also been produced by its continued use.

It is eliminated by the lungs and kidneys, and has been found four days after its ingestion, in the urine.

Therapeutic Individuality.

Urinary and Sexual Organs.—Ascites, and general anasarca, from renal disease, especially albuminuria after scarlatina.

The great interest of this remedy is centered in *gonorrhœa*; and, as soon as the acute symptoms have been subdued by Aconite, no remedy can finish the cure more rapidly than Copaiba. Five drops given on sugar once in four hours will dry the discharge up at once; but it must be continued for at least a week.

In some obstinate cases, ten to fifteen drops of the Oil will have to be used at a dose.

Yellow, purulent discharge from the urethra.

Burning in the urethra, with frequent micturition.

Chronic gleet, with muco-purulent discharge.

Gonorrhœal rheumatism, especially affecting the knees.

"Bloody urine, with constant urging to urinate, and tendency to chordee."—*Dr. Franklin*.

"Has cured numerous cases of hæmaturia in women."—*F*.

"I have found it especially valuable in irritation of the urethra and neck of the bladder in old women."—*Hughes*.

Chronic catarrh of the bladder, with copious mucous discharge.

Bronchi.—Chronic bronchorrhœa (dilated bronchi), with profuse expectoration of a greenish, purulent, fetid mucus.

Skin.—Urticaria from gastric irritation, with fever and intolerable itching. (Many cures.)

"Aene of long duration, with much disfiguration of the face."—*Hughes*.

Bowels.—Chronic catarrh of intestinal tract, with diarrhœa.

Aggravation.—Mornings.

Amelioration.—From walking.

CORALLIUM RUBRUM.

Red Coral.

Habitat, Mediterranean Sea. Trituration.

Through the cerebro-spinal system, this remedy has one special center of action :

I. PNEUMOGASTRIC N. *Sensitive Filaments. Hyperæsthesia.*

Pneumogastric Nerve.—Through the sensitive filaments of the vagi, Corallium produces a dry, spasmodic, convulsive cough, and a general hysterical condition of the laryngo-bronchial mucous membrane.

Therapeutic Individuality.

Violent, dry, teasing, spasmodic cough, so violent that children lose their breath, and grow black in the face.

"Paroxysms of violent spasmodic cough, commencing with gasping for breath, and continuing with repeated crowing inspiration, until the patient grows purple or black in the face, and is quite exhausted ; worse at night."—*D.*

"Pertussis in children that take very little food or drink."—*G.*

"Laryngismus stridulus, and chronic convulsive cough."—*Hughes.*

For dry, spasmodic, hysterical cough, worse at night, Corallium has proved of great service in attenuations from the 12th to the 30th.

CROCUS SATIVUS.

Saffron.

Habitat: Asia, Europe, etc. Tincture of the dried stigmata, Class IV.

Antidotes.—Aconite, Opium, Belladonna, Secale.

Through the cerebro-spinal system, Crocus has three special centers of action :

- I. CEREbro-SPINAL SYSTEM. *Hysterical Emotional Excitement.*
- II. SEXUAL O., FEMALE. *Venous Cong. ; Passive Hemorrhages.*
- III. BLOOD. *Dark and Stringy.*

Cerebro-Spinal System.—In small doses, it excites the different functions, exhilarates the spirits, relieves pain, and produces sleep. Large doses give rise to headache, intoxication, delirium, stupor; and, in doses of two or three drachms, it has caused death. It has a peculiar action upon the eyes, causing a feeling as if gauze were before them, with constant disposition to wipe it away.

Through the emotional centers, it causes an extraordinary laughing mania.

Generative Organs of Women.—Crocus has the power of producing great venous congestion to the uterus, with passive uterine hemorrhage, and a feeling in the abdomen as of something alive. The emmenagogue action of Crocus, though ignored by most old-school writers, has been abundantly confirmed by our provings.

On the blood, it has a peculiar action, making it dark and stringy.

Therapeutic Individuality.

Menorrhagia, blood dark, clotted, and stringy.

“Menorrhagia of dark, stringy blood; as it is discharged it forms itself into long strings.”—*G.*

“Black, stringy discharge from the uterus, with rolling and bounding in the abdomen as from a foetus.”—*G.*

Passive uterine hemorrhage; blood dark and stringy, in nervous, hysterical women; aggravated by motion.

Miscarriage at the third month. (Of great value.)

False or nervous pregnancy, with sensation as if something alive were in the abdomen.

"Dysmenorrhœa, with sensation in the stomach of great commotion, upward and downward, hither and thither; the blood is dark and stringy."—*G.*

Digestive Organs.—"Feeling of nausea in the chest and throat, as if she would vomit."—*G.*

Stitches in the abdomen arresting respiration.

Abdomen swollen, with sensation of something moving in it.

"Long, dull stitches in the anus, from time to time continuous, and painfully affecting the whole nervous system."—*G.*

Dr. Schneider has great confidence in it for constipation of infants; he uses from one to three drops of the tincture.

Head.—"Great mental dejection; menses suppressed; the blood dark and stringy."—*G.*

Sings during sleep. Sleepless at night, and drowsy through the day.

"She is worse every evening, with alternations of excessive happiness; tender and affectionate; followed by rage."—*G.*

"Yellowish, earthy color of the face."—*G.*

Eyes.—Aching pain in the muscles of the eyes.

"Feeling as if there was gauze before the eyes."—*G.*

Feeling as if he had been looking through too sharp spectacles; eyes ache very much after reading, feeling as if he had wept too much; constant winking; hysterical asthenopia.

Generalities.—Epistaxis or hæmoptysis; the blood dark and stringy. (Very characteristic.)

"Great debility and palpitation of the heart on going up stairs."—*G.* [In hysterical affections.]

"Chorea every seven days, with great debility, dancing, singing."—*G.*

"Spasmodic contraction of single muscles; jumping, dancing, laughing, whistling; wants to kiss everybody, with congestion of the head."—*G.*

Aggravation.—Mornings; fasting; during pregnancy, and in the house.

Amelioration.—In the open air and from eating.

CROTALUS HORRIDUS.

Rattlesnake Poison.

Habitat: America, etc. Trituration of the poison. Solution in glycerine.

Antidotes.—Alcohol or Whisky, to intoxication. Bile of the Rattlesnake.

Through the cerebro-spinal nervous system, *Crotalus* has six special centers of action:

- I. BRAIN. *Medulla and Sensory Nerve Life Instantly Destroy'd.*
- II. PNEUMOGASTRIC. *Spasms of the Throat; Emesis; Asthma.*
- III. BLOOD. *Rapid Septic Decomposition; Fibrine Incoagulable.*
- IV. CIRCULATION. *Vaso-Motor Paralysis; Asthenic Fever.*
- V. SKIN. *Jaundice; Hemorrhages; Ecchymosis; Gangrene.*
- VI. GLANDULAR S. *All Glands Congested; Fatty Degeneration.*

Cerebro-Spinal System.—The life of the medulla oblongata and of the sensory nerves of the medulla spinalis, is struck down as it were by lightning; and they lose their vitality before the efferent or motor nerves are affected. The poison acts first upon the sensory nerves, their nerve force being apparently annihilated; and the sensory ganglia are powerfully affected. The action on the optic ganglia is shown by the extreme dilatation of the pupil and insensibility to light; on the auditory ganglia, by the loss of hearing. The higher cerebral ganglia remain a long time unaffected, or escape entirely. Its action upon the olfactory ganglia, causes complete loss of smell, so that the most pungent salts held to the nostrils, are not noticed. In fatal cases, the depression of the nerve centers is most profound, as shown by twitchings, convulsions, delirium, syncope, exhaustion, and death from paralysis of the spinal nerves.

Dr. R. Hughes says: "In the first group, the symptoms are those of direct poisoning of the nervous centers, without local inflammation or blood changes. Sometimes the symptoms are those of epilepsy, sometimes tetaniform; but most frequently there is nothing but profound prostration, with speedy supervening unconsciousness. From the sense of being heated all over, we may infer that there is *paresis* of the *vaso-motor* system."

A bitten person often complains of vertigo, throbbing frontal headache, neuralgic pains in the head and neck, and nervous tremor.

Pneumogastric.—Its influence upon this nerve is one of the most marked and characteristic symptoms of the poison. Its action upon the glosso-pharyngeal branch, is one of its most constant effects, as shown by the constant irritation and spasm of the pharynx and larynx. The constriction of the throat is so great that swallowing is performed with great difficulty; respiration, also, is very difficult. It acts upon the stomach, causing nausea, and vomiting of greenish or bloody matter.

Blood.—This is the most important field of action belonging to *Crotalus*. The poison seems to reach over, so to speak, to the great sympathetic, and destroy its life. Through these two nervous systems, not only are the blood-making organs destroyed, but the blood itself is destroyed by becoming acid; and, when the blood becomes acid, it means death, and the animal life ceases.

Dr. Mitchell sums up the action of the *Crotalus* poison upon the blood in the following graphic language:

"The study of envenomed blood has taught:

"1. That, in animals which survive the poisoning for a time, the blood is so altered as to render the fibrine incoagulable.

"2. Experiments in and out of the body have given proof that this change is gradual, and that the absence of coagulation is not due to checked formation of fibrine, but to alterations produced by the action of the venom in that fibrine which already exists in the circulating blood.

"3. The influence thus exerted is of a putrefactive nature, and imitates, *in a few hours*, the ordinary work of days of change. It is probably even more rapid in the body, on account of the higher temperature.

"4. The altered blood retains its power to absorb gases, and thus to change its own color.

"5. The blood-corpuscles are unaffected in acute poisoning by *Crotalus* venom, and are rarely doubtfully altered in the most prolonged cases which result fatally.

"6. The contents of the blood-globules of the guinea-pig can be made to crystallize, as is usual after other modes of death.

"Among the most constant and curious lesions in the cases of *secondary poisoning* are the *ecchymoses* which are found on and in the viscera of the chest and belly, most frequently affecting the intesti-

nal canal. They may and do occur in any cavity, and on any organ. These spots contain blood, whose globules are more or less deformed, but still of dimensions not less than usual.

"Owing to the changes of the blood or the tissue or both, extravasations are met with in the lungs, brain, kidneys, serous membranes, intestines, and heart. As a result, we may have functional derangement grafted on the main stem of the malady, and the accompaniments of bloody serum in the affected cavities, bloody mucus in the intestinal canal, and bloody urine in the bladder.

"That the venom of *Crotalus*, like that of other snakes, is a septic, or putrefacient, poison, of astounding energy,—a view long held by toxicologists.

"The rapid decomposition of the blood, and of the tissues locally acted upon by the venom, leaves no doubt upon the matter, and makes it apparent that an incipient putrefaction of this nature may so affect the blood as to destroy its power to clot, and perhaps, also, to nourish the tissues through which it passes."

"The alterations thus brought about are probably the results of a continued fermentive change, which, by a small amount of poison, is gradually made to involve in fatal change the whole mass of the circulating fluids. Like all fermentations, however, the rapidity depends upon temperature, and on the amount of the primary ferment. In one instance, a dog, struck by eight snakes, died in eighteen minutes, and exhibited uncoagulable blood. I am not aware of any other case of so rapid loss of the coagulability of the blood. It was rendered thus by the number of localities from which the ferment attacked the system."

"The cause of death in *chronic or secondary poisoning*, may with propriety be referred to the incipient putrefactive changes which affect the blood, as well as the continued influence of the agencies which first act to depress the heart's action and destroy nerve function."—*S. B. Higgins, S. A.*

The longer death is delayed, the greater the lesions, and the blood constantly becomes more and more liquefied. A beautiful illustration of this is given us by *S. B. Higgins*. A dog, a "small terrier, survived very serious visceral lesions, and lived during two days with his blood in a condition of complete diffuence. Twenty hours from the time of the poisoning, the dog was found lying on his left side, having passed slimy and bloody stools in abundance. At intervals he seemed to suffer much from tenesmus, but was so weak that he stood up with difficulty. His gums were bleeding, a symptom I had seen before, and his eyes were

deeply injected (the most characteristic symptoms of yellow fever, according to Manzini). Twenty-seven hours after the time he was bitten, his hind legs were twitching, and the dysentery continued. No clot was found in the blood."

In the *Medical Times and Gazette*, Dr. Mitchell speaks of the striking power of snake venom to cause hemorrhages: "You have only to moisten the intestinal peritoneum with it and blood will be forthwith effused at the spot." This must be referred to some alteration in the walls of the vessels, probably similar to fatty degeneration.

Glandular System.—*Liver.*—Jaundice is a marked symptom in snake-poisoning. In France this is regarded as a symptom of fear. But I can not subscribe to this; for how can fear produce the marked icterus seen in the last stages of the malady caused by the venom. It is more likely due to innervation, portal congestion, and a state of the blood-vessels similar to fatty degeneration, which hinders the due metamorphosis of their absorbed secretions.

Frerichs says: "Yellow fever, pyæmia, typhus, and acute asthenic diseases are complicated with jaundice. A group of severe symptoms, such as hemorrhages from the gastro-intestinal mucous membrane, ecchymosis of the surface, albuminuria, hæmaturia, suppression of urine, manifest themselves." All these point directly to extensive liquefaction and destruction of the blood.

Parotid and Salivary Glands.—These glands are greatly congested and swollen. Angina tonsillarum; gums swollen and bleeding; very fetid breath.

Mammæ.—The secretions of the mammæ are so charged with the venom that they are a deadly poison to nursing babes.

Skin.—Hemorrhages from the pores of the skin. The entire surface of the skin becomes yellow; or the skin is yellow in spots, which are so persistent that they return yearly, and the same with the maculæ. Blisters and livid spots, surrounded by a red areola, filled with dark and bloody serum; ecchymosis, and a leaden color of the face that lasts during life.

General Character and Effects.—The following will give a more thorough understanding of the nature and effects of this poison: "Immediately after the injection of the poison, there is a sudden increase in the rapidity of the circulation of the blood; sharp pains in the chest, throat, and limbs, much œdema of the

parts bitten; sensations of flushes of heat in the whole body, followed by ice-cold chills; abundant epistaxis; discoloration of the finger and toe nails, and flow of blood from under them; blood flows from the gums, roof of the mouth, and from the urinary canal; the pulse rises suddenly to 140 or 160, and as suddenly lowers to 75 or 80, to rise again to 100 or 105; surface of the skin becomes red; soon after it changes to a purple hue; oppression in the chest is felt; great muscular debility ensues, which is superseded by a state of coma; patient rouses slightly, complains of inability to distinguish objects around him; relapses into the comatose condition; a bloody or dark-colored or greenish froth is noticed on the lips, and death ensues immediately thereafter."—*S. B. Higgins.*

It is said that men who survive the bite of the *Crotalus* suffer all their lives.

Dr. R. Hughes has written up the poisonous effects of the *Ophidians* all together, making no distinction between the action of the venom of *Crotalus*, *Lachesis*, and *Naja tripudians*. This we believe to be all wrong; for the effects of each differ greatly. Dr. Fayrer says: "In all cases where the blood forms a firm coagulum after death, the poison is of a Coluber; and, in all cases where it remains perfectly fluid, it is of a Viper. This point is not positively determined as yet. We may, however, take the *Naja tripudians* as heading the scale of those poisons whose action on the blood produces a coagulum, and the *Crotalus* as the synonym for the opposite class, whose action on the blood produces permanent fluidity. It is probable that the action of all the snake poisons ranges between those two extremes."

Therapeutic Individuality.

Crotalus is adapted to asthenic hæmatic diseases, such as putrid sore throat, carbuncle, malignant pustule, malignant erysipelas, gangrene, typhoid, typhus, and yellow fever, pyæmia, purpura, septicæmia, diphtheria, malignant scarlatina, and glanders, with profound prostration and a tendency to rapid death.

In yellow fever, *Crotalus* has gained its greatest laurels. No remedy covers the symptoms of this fever so completely, and none has made more cures. It has been used as a prophylactic in yellow fever, by inoculation, with good results.

All fevers assume the low typhoid form, with great prostration of the vital forces.

Languor, with frequent fainting spells.

Trembling of the whole body.

Hemorrhages from every orifice of the body, gums, nose, stomach, lungs, urethra, womb, bowels, eyes, ears, and the pores of the skin.

Wounds bleed readily, old cicatrices break open again.

Most of the symptoms appear on the right side. (Lachesis on the left side.)

Head.—Mental prostration.

Debility of intellectual faculties.

Visions; extraordinary hallucinations; almost lunacy.

Illusions of the sense of hearing; deafness.

Rush of blood to the head, with a feeling of tightness in the head, with vertigo and nausea.

Swelling of the head and face.

Headache of the frontal and orbital region is a prominent indication for Crotalus.

Eyes.—Burning in the eyes.

Blood oozes from the eyes, which look ecchymosed.

Dilated pupils, with loss of vision.

"Hemorrhages into the retina, from retinitis."—*Dr. Liebold.*

Great sensitiveness to light, the lids greatly swollen.

Yellow color of the eyes.

Digestive Organs.—"Moldy smell from mouth."—*Neidhard.*

Extremely fetid breath.

"Tongue scarlet red, or brown and swollen."—*Hg.*

Looseness of the teeth, with bleeding gums.

Painful roughness and dryness of the throat, with difficult deglutition of saliva.

Swelling of the salivary glands and tonsils.

Spasms of the throat, with feeling of lump in œsophagus.

Great unquenchable thirst is a prominent symptom.

"Sore pain from pit of the stomach to region of liver, with qualmishness, nausea, and vomiting of green bilious matter."—*Neidhard.*

Very severe headache, with difficult deglutition, nausea, and bilious vomiting, with cold, clammy skin.

Vomiting of blood, and green bilious matter.

Violent vomiting every time he eats.

Can not bear tight clothing over the stomach or liver.

Burning distress in the region of the liver.

Involuntary stools, of mucus, bile, and blood.

Stools of mucus and blood, with severe tenesmus.

Copious hemorrhages from the rectum, with typhoid symptoms, tympanitis, and excessive prostration.

Abdomen swollen, with inflammation of the viscera.

Kidneys.—Urine high colored, red, yellow as in jaundice; or, suppression of urine.

Hemorrhage from the urethra.

Albuminuria from fatty degeneration of the kidney.

Sexual Organs, Female.—Menses too soon, too copious, with great prostration.

Profuse menorrhagia and metrorrhagia.

Puerperal septicæmia, with uterine hemorrhages, tympanitis, and typhoid symptoms, with great prostration, and indifferent to all around her.

Respiratory Organs.—Hoarseness and weak voice.

Oppression of the chest, with spasms of the throat.

Hydrothorax, with great difficulty in breathing.

Tightness of the chest as if the lungs would not expand, with great thirst.

Palpitation of the heart, with dyspnœa.

Larynx very painful to the touch, feeling as if bruised.

"Typhoid pneumonia, from septicæmia."—*Hg.*

Fever.—Hæmatic fevers of a typhoid type and very fatal in character. The relaxation and depression of the vital powers are most profound; the muscles tremble. The symptoms of yellow fever are completely portrayed. The countenance has a drunken, bloated look; severe frontal headache, bleeding of the gums; excessive thirst, violent vomiting of bile and blood; excessive jaundice; involuntary stool, with tympanitis, suppression of urine; excessive pain in the small of the back; excessively high temperature, and great prostration. The foregoing have been cured time and time again with *Crotalus*. The excessive pain in the small of the back, and legs, is one of the prominent keys for the use of this remedy.

In malignant scarlet fever, carbuncle, and all diseases where blood-poisoning is a marked symptom, *Crotalus* should be studied.

Skin.—Skin covered with yellow spots, or excessive jaundice.

Oozing of blood from the pores of the skin.

Blisters and livid spots, filled with bloody ichor.

Gangrene in any part of the body.

Erysipelatous inflammation, the skin covered with blotches.

Malignant inflammation of the cellular tissue.

The whole body swollen.

General anasarca, with much debility.

Old cicatrices break open again.

Blisters and livid spots on the body, with fainting fits.

Acts on fat people better than on lean, and on white people better than on colored.

Aggravation.—Morning and night.

Amelioration.—From walking in open air.

CROTON TIGLIUM.

Croton Oil.

Habitat: East India, etc. Tincture of the dried seed, Class IV.

Antidotes.—Rhus tox., Cantharis. Decoction of Tansy, locally.

Through the abdominal sympathetic nervous system, Croton Oil has five special centers of action :

- I. GASTRO-INTESTINAL C. *Most Violent Hydragogue Cathartic.*
- II. MUCOUS MEMBRANES. (INTESTINAL.) *Violent Inflammation.*
- III. PNEUMOGASTRIC NERVE. *Nausea and Violent Vomiting.*
- IV. LIVER. *Hepatic Stimulant; Bile Increased.*
- V. SKIN. (LOCALLY.) *Eczema; Vesicular and Pustular.*

Abdominal Mucous Membrane.—Croton oil is the most powerful hydragogue cathartic known. If one or two drops be placed on the tongue, by its action through the abdominal sympathetic, the watery part of the blood is poured out into the intestinal tract, causing copious watery stools in less than an hour.

Dr. Bartholow says: "The mucous membrane is violently attacked by Croton oil. In the fauces, it causes an intensely acrid sensation, and increases the flow of saliva. A sense of heat, pain, and nausea, is produced when the Oil is received into the stomach; tormina soon follows, and in an hour or two, watery stools,

with some burning and irritation about the anus. The action of the Oil continues during the succeeding twelve or twenty-four hours, numerous fluid dejections are passed, and considerable debility is the result. When large doses are taken, if not rejected promptly by vomiting, violent hypercatharsis occurs with great prostration and collapse. Fortunately, when very large doses are taken, vomiting quickly ensues; and hence very large quantities have been taken without producing a fatal result. The lesions caused by Croton oil are those of gastro-enteritis; but fatal cases have occurred, with all the objective phenomena of choleraic collapse, without any evidence of local inflammation."

"The action of Croton oil upon dogs is very speedy and decided. Conwell found that a single drop given to a dog produced a discharge from the bowels within forty minutes; twelve drops caused vomiting; and, on the animal being sacrificed, the whole intestinal canal was found inflamed. Five drops injected into a vein produced vomiting, purging, debility, and in two hours death. The gastro-intestinal mucous membrane was highly inflamed. . . .

"According to Fossati, one-half to one drop will produce fifteen or twenty stools, and that 'without the least disturbance or pain.' It is seldom that such marked effects are observed from so small a dose. In general, a drop, given in emulsion or in pill, produces more or less of an acrid and burning sensation in the fauces and cesophagus, and warmth of the stomach, with nausea, and sometimes vomiting. In the course of an hour or two, some gurgling or light colic is perceived in the bowels, followed somewhat suddenly by a watery stool which produces tenesmus and heat about the anus. Within twenty-four hours, eight or ten more stools follow; but there is little general disturbance of the economy further than considerable weakness."—*Stille*.

Pneumogastric Nerve.—Croton oil has quite an action upon the vagi, shown by the vomiting in the majority of cases of poisoning. "A little girl six years old took three grammes,—about forty-six grains,—mixed with milk and coffee. She experienced some irritation in the fauces at the time, and, soon afterward, acute pain in the stomach, with violent and profuse vomiting, which lasted for three-quarters of an hour. No evil consequences whatever ensued. It probably acts as an irritant to the filaments of the vagi distributed to the stomach, and in that way causes the vomiting."—*Stille*.

Liver.—"Rohrig found that Croton oil stimulated the hepatic function, and increased the flow of bile. Radziejewski found pep-

tones, bile, glycogen, leucine, and torosine, in the stools. Rutherford and Vignal have since shown that Croton oil, although it causes great vascular dilatation of the vessels of the intestinal mucous membrane, can not be regarded as a cholagogue."—*Bartholow*.

In toxic doses, Croton oil seems to act upon the cerebro-spinal system; but I believe this effect to be mostly sympathetic from the great and specific action upon the abdominal cavity. The symptoms are: Oppression and uneasiness of the epigastrium, general restlessness, violent palpitation of the heart, headache, confusion of ideas, flushes of heat; or, the features sunken, tongue pale and moist, pulse thready and irregular, skin bathed in cold sweat; collapse and death.

Skin.—The local effects, Hebra says, completely resemble eczema. "Rubbed upon the skin, it brings out after a few hours, an eruption of minute red pimples, which are always more numerous in proportion to the delicacy and vascularity of the skin, and which are gradually converted into pustules. Some of these have the flattened and umbilicated aspect of the variolous or the Tarter emetic eruption, but the greater number are acuminate or rounded. Many of them are apt to be confluent. They are surrounded by a red areola, and accompanied with a more or less severe burning pain and itching. The eruption augments for three or four days, and then remains stationary. Somewhat later, the pustules break, in part, and form scabs, and in part wither away. If they are numerous and large, they become confluent, and form thick, extensive crusts. Between the sixth and twelfth days, they separate, and leave no cicatrix behind them." (Stille.) As to there being a cicatrix left, Bartholow says, that, in many subjects, permanent small white cicatrices mark the site of the eruption. All subjects are not equally susceptible to the vesicating action of Croton oil.

As a *counter-irritant* in cerebral and lung diseases, the Allopathic school have great confidence in its external use, and think it about specific for *sciatica* and *spinal neuralgia*, giving it a preference over all other counter-irritants. It is applied by means of a feather, and friction made with a rag until the skin becomes dry.

Therapeutic Individuality.

Diarrhœa; stools are copious, watery, and escape from the bowels suddenly, as if shot out of a gun, with much prostration. Especially in the summer.

Bell says that three highly characteristic symptoms of Croton oil are, yellow, watery stool, sudden expulsion, and aggravation from drink and food.

Yellow, watery, greenish, and painless stools, with dry lips, nausea, and great faintness.

"Colic and diarrhœa immediately after nursing."—*G.*

"Bowels move with a spasmodic burst or jerk, coming out like a shot."—*G.*

Abdomen much distended with gas.

"Cholera infantum; teething children; excessive nausea and frequent stools, of green or yellow water."—*Dr. A. E. Small.*

Watery, profuse, excoriating diarrhœa in infants.

Flatulent, watery, urgent diarrhœa; great gurgling and colic pains about the umbilicus, with much prostration.

Mucous stools, with great burning in the anus after stool.

Skin.—Vesicles on the skin, with a yellow plastic exudation that burns like fire.

Red vesicles on the skin that burn like fire. No drug causes such intolerable itching and violent burning of the skin; aggravated by contact; relieved by slight friction.

"The rapid and permanent manner in which Croton oil often relieves the itching attendant upon eczema, is one of the prettiest things in medicine."—*Hughes.*

Urticaria of the skin of the abdomen.

Eyes.—Pustular conjunctivitis and keratitis, with violent burning pains and marked photophobia.

Injected state of the vessels of the conjunctiva, sclera, and eyelids; profuse lachrymation, violent pains at night.

Chest.—Drawing pain through the left pectoral region into the back.

Every time the child nurses, it causes a severe pain, running through from the nipple to the back.

Vesicular erysipelas, with much itching, especially of the genitals.

Feeling as though the lungs could not be expanded, with burning stitches in the chest and scapulæ.

Laryngeal catarrh; voice hoarse, hollow; breathing labored.

Hard, frequent cough; sputa yellow, expelled with difficulty.

Sexual Organs, Male.—Intense itching of the genitals, relieved by slight scratching; vesicular and pustular eruption on the scrotum and penis; irritation and erections.

Sexual Organs, Female.—Menses too scanty, with much itching and swelling of the vulva; palpitation of the heart.

Aggravation.—Mornings, while at rest.

Amelioration.—During a walk.

CUPRUM.

Copper.

An element. Found in Europe, Asia, America, etc. Trituration.

Antidotes.—Albumen and Milk, Bell., Ipec., Nux vom., Cocc., Sulph.

Through the cerebro-spinal nervous system, Cuprum has six special centers of action:

- I. DIGESTIVE ORGANS. *Violent Gastro-Enteritis.*
- II. PNEUMOGASTRIC N. *Violent Emesis; Convulsive Respirat'n.*
- III. LIVER. *Jaundice; Fatty Degeneration.*
- IV. KIDNEYS. *Albuminuria; Suppression of Urine.*
- V. CEREBRO-SPINAL SYSTEM. *Cramps; Convulsions; Paralysis.*
- VI. CIRCULA'N. *Lessened Blood Pressure; Vaso-Motor Paralysis.*

Digestive Organs.—Gastro-enteritis of a most violent kind is the most prominent effect of Cuprum. Copper has "a styptic, metallic taste, and causes burning and constriction of the throat, increased flow of saliva, burning pain in the epigastrium, with griping and colic pain of the intestines, nausea and vomiting. The vomited matters have usually a bluish or greenish color; and the intestinal evacuations, which begin in a few minutes after the poison has been swallowed, are dark, greenish, and frequently bloody. When inhaled, the symptoms first observed are those of bronchial irritation and bronchial catarrh. Internally administered, a gastro-intestinal catarrh is produced, epigastric pain is experienced, nausea, vomiting, colic, tenesmus, and dys-

enteric discharges, and complete anorexia occur. The loss of appetite, and the interference with digestion, as well as the injury done to the red blood-globules, impair the strength, and increase the waste of the tissues. A purplish line along the margin of the gums has been observed; salivation, and ulceration of the gums, not unfrequently occur, and occasionally jaundice is present."—*Bartholow*.

Stille says, that toxic doses produce "headache, insensibility, convulsions, tetanus, contracted features, small pulse, cold skin, colic, vomiting, which is generally violent, sometimes suppression of urine, and occasionally jaundice. Recovery is usually rapid and complete. Sometimes, but rarely, there remains for several weeks a liability to vomiting, with colic and diarrhœa, extreme debility and more or less emaciation. There is a form of enteritis marked by diarrhœa, tenderness of the abdomen, vomiting, and sometimes bloody stools, which is produced by emanations of Copper and by the ingestion of its salts, especially the Acetate, the Sulphate not producing it."

Pneumogastric Nerve.—Five to fifteen grains given as an emetic, acts with great celerity, leaving no nausea or malaise behind it. Clarus regards it as acting less upon the mucous coat of the stomach than upon the vagi. The violent dyspnœa and convulsive breathing, and finally complete failure of respiration, all go to show its marked influence upon the pneumogastric.

Liver.—The jaundice so often produced by Copper is not yet fully accounted for. "Bourneville and Yvon found two hundred and ninety-five milligrammes of metallic Copper in the liver of a woman who had taken the Ammoniacal Sulphate three months previously. Minute quantities of Copper exist in the normal human body."—*Wood's Therapeutics*.

Copper tends to accumulate in the liver, like all other metallic poisons; and it has produced granular liver in rabbits.

Kidneys.—Suppression of urine is often produced by Copper. The Central Homœopathic Society of Germany, produced in two rabbits, by subcutaneous injections of Copper, scanty and albuminous urine; and the kidneys were found after death with their tubes full of shed and degenerated epithelium. The left ventricle of the heart was much hypertrophied, and the liver granular.

Post-Mortem Appearances.—Intense inflammation of the mucous membrane of the stomach, often extending along the duodenum and upper part of the small intestines. In some cases, ulceration and sloughing of the bowels have been found, and even perforation of the peritoneum. If the Sulphate has been taken, the blue or green color of the coating formed upon the mucous membranes is quite characteristic. In a few instances, Copper has produced a mummified condition of the victim's body.

Cerebro-Spinal System.—In many cases of poisoning, the nervous centers sympathize in a very marked degree, as shown by the headache, convulsions, tetanus, insensibility, muscular trembling, altered sensations, defects of co-ordination, and paresis of the limbs. Prof. Falck found that the Sulphate of Copper acts upon pigeons, dogs, rabbits, etc., as an irritant neurotic poison, producing great depression of temperature, with progressive general paresis ending in death, apparently from failure of respiration.

Hughes says: "The cramps mentioned by Pereira are especially characteristic of the action of Cuprum. We have seen an instance of them in its colic; and you have only to read a few cases of poisoning by it to observe how readily they are induced elsewhere under its action. They may be local or general, clonic or tonic; they may be simple trembling, or go on to violent convulsions. Sometimes they occur in the air-tubes, causing very intense dyspnoea, with laryngeal and bronchial spasm."

The first or primary effect of Copper is upon the alimentary canal, and secondarily upon the nervous centers.

Pathology: Hyperæmia of the meninges of the brain and spine has been noted.

Heart.—Falck and others found that it exerted a powerful action upon the heart, producing death by paralysis of this organ.

Elimination.—By the intestinal canal, liver, salivary glands, and kidneys.

Therapeutic Individuality.

Cuprum is adapted to neurotic and gastro-intestinal diseases, and acts better in light-haired people.

Digestive Organs.—Strong metallic taste.

"Rough of the mouth always red."—*Raue*.

Tongue red, dry, and rough, or coated white, yellow, or brown.

"Gurgling noise of the drink when passing down the cesophagus."—*Hg.*

Spasms, with nausea and violent vomiting of frothy mucus.

Sensation as if something bitter was in the stomach.

Nausea, and violent vomiting, with cramps in the stomach and extremities, with violent diarrhœa; green, slimy stools.

Drinking cold water relieves the vomiting.

Deathly feeling, with pain in the stomach; choleraic disease.

Sensation as if something bitter was in the stomach.

Abdomen and Stools.—Watery, involuntary diarrhœa, with violent cramps of the involuntary muscles. (Very characteristic.)

"Stools black, copious, and painful, or bloody with tenesmus and weakness."—*Hale.*

Violent colic, with great anxiety; the pain in the stomach is intense.

Watery, fecal, and mucous diarrhœa; restless tossing about and constant uneasiness; abdomen very tender on pressure.

"Choleraic diarrhœa, where the spasms and cramps are the predominant symptoms, affecting the voluntary muscles.

Cholera, second stage, with clonic spasms, and collapse.

"Violent spasms in the abdomen, and upper and lower limbs, with distressing screams."—*Hg.*

"Spasmodic movements of the abdominal muscles."—*Hg.*

"Diarrhœa; profuse, squirting out, with much wind passing, or flocculent, whey-like fluid."—*Hg.*

Cholera infantum, with brain symptoms, and the enteric symptoms not so marked; clonic convulsions begin in the hands and feet; mind normal, except during the spasm.

Ascites, from hepatic disease.

Urinary Organs.—Dark red urine, or complete suppression of urine. In choleraic diseases.

Acid urine; a reddish sediment adheres to the vessel.

Uræmia, eclamptic form, dyspnœa, talkative delirium; extensor muscles most prominently affected.

Albuminuria from fatty degeneration of the kidneys.

Sexual Organs, Female.—Menses too early, and too profuse; blood black, clotted, and stringy.

Scanty, irregular menstruation; severe and painful.

Chlorosis; torpid cases; much anæmia and great debility.

Ulceration of the os. (Applied locally.)

Head.—"Paralysis of the brain when caused by a process of metaschematismus, an irritation of the cerebral substance having been superinduced by the sudden retrocession of some acute eruption, or some other disorder that required Copper at first."—*Hempel*.

"Metastasis of the eruption (of scarlatina) to the brain, with vomiting and spasms."—*F*.

"Cerebral symptoms which result from the retrocession of any of the acute exanthemata, or from difficult dentition in children, not active enough for Belladonna."—*Dr. G. Schmidt*.

Convulsions, with fearful cries; the head is moved from one side to another; aggravated by contact.

Cold face, blue lips, and coldness all over.

"Epilepsy; the convulsions are extremely violent, with pale face; mind nearly gone."—*W. Bayes, M. D.*

Vertigo, with tendency to fall forward.

Congestion of blood to the brain; irritable, or sad and indifferent, with spasms of the extremities.

Eyes.—Eyes red and inflamed; granular lids.

In catarrhal and purulent conjunctivitis, it is of great value, applied locally in solution of from one to two grains of the Sulphate to an ounce of water. Two drops may be instilled into the eye from two to four times a day, or once a day; or, the smooth crystal may be applied to the conjunctiva.

Respiratory Organs.—Sudden attacks of dyspnœa unto suffocation.

"Long-continued paroxysms of convulsive coughing, with vomiting of mucus; blue face and lips."—*G*.

"Whooping-cough in long, continuous attacks, causing suffocative fits; one swallow of cold water relieves."—*Lippe*.

Prolonged laryngismus stridulus.

In pure nervous asthma, Dr. Russel says there is no medicine like it. Dyspnœa; short, superficial, quick respirations, come on suddenly and leave suddenly.

Dry, hoarse, suffocative, spasmodic cough; worse nights.

Dr. Bayes has seen fine results with the 6th in fatty degeneration of the heart, with slow pulse and feeble muscular action of the heart. In some cases with severe angina pectoris.

Pulse very changeable, small and thready.

Skin.—"Next to Sulphur, and in some cases beyond Sulphur, Cuprum is curative in itch. Inveterate itch yields to an ointment

of from 5 to 10 grains of the Sulphate to the ounce of lard, applied locally."—*Dr. Bayes.*

Indolent ulcers with flabby granulations, and herpes circinatus.

Generalities.—Nervous trembling; great prostration; restlessness driving out of bed.

Contractions of muscles and tendons, especially of the legs.

Flushes of heat, and burning of the soles of the feet.

Foot-sweat, also suppressed foot-sweat.

Debilitating, exhausting internal heat.

Weariness of long duration.

Cramps in the legs and feet, with great restlessness.

"Cuprum convulsions start from the utmost ends of the peripheral nerves (fingers and toes), and progress toward the nerve centers."—*S. Lilienthal, M. D.*

Constitutional Syphilis.—"Drs. Martin and Oberlin gave a brief report upon this subject at a late meeting of the Paris Academy of Medicine. The authors treated fifty patients, who showed various manifestations of syphilis, by the Copper Sulphate. The results were quite satisfactory, the fifty patients all being cured. A comparison of this method was made with the ordinary Mercury methods, and it was found that the Copper salt proved more efficacious and required less time for its beneficial action than did the Mercury salts. The Copper was also well borne by most patients; in only one case it produced initial vomiting, followed, however, by permanent tolerance of the drug. In a case of very grave syphilis, where Mercury had proved useless, the administration of Copper effected a rapid and complete cure. In a few cases, the gums became affected, a greenish tint appearing at their free border. But this Cupric gingivitis yielded more rapidly than the analogous Mercurial affection ordinarily does. Actual sponginess of the gums was not observed. The salt was exhibited by the mouth in doses of gr. 1-16 to gr. 1-6 per day. An aqueous solution was employed. External application was also made by adding five drachms of the salt to a full bath."—*Gaz. Med. de Paris, April 10, 1880.*

Aggravation.—By contact; vomiting; at night, and before menstruation.

Amelioration.—By drinking cold water; perspiring, and mesmerism.

DIGITALIS PURPUREA.

Purple Foxglove.

Habitat: Europe, etc. Tincture of the green leaves just before inflorescence, Class I.

Antidotes.—Camph., Nux vom., Op., Ether, Acids, Sweet Milk with Galls.

Through the cerebro-spinal system, Digitalis has eleven special centers of action:

- I. HEART. *Musculo-Motor Stimul't; Irregular, Firm Contract'n.*
- II. ARTERIES. *Vaso-M. Stimulant; Firm Arterial Contractions.*
- III. VAGI. *Paralysis to Terminal Twigs; Emesis; Congestion.*
- IV. KIDNEYS. *Increased Blood-Pressure; Diuresis.*
- V. STOMACH AND COLON. *Congestion; Inflammation.*
- VI. LIVER. *Portal Congestion; Jaundice. (GLANDS.) Salivation.*
- VII. SEX. ORGANS. (1) *Stimulation.* (2) *Profound Prostration.*
- VIII. BRAIN. *Congestion, Delirium, Coma.*
- IX. EYES. *Mydriasis, Chromatopsia. (GLANDS.) Inflamed.*
- X. CORD. *Complete Loss of Reflex Function; Paralysis.*
- XI. TEMPERATURE. *Greatly Lowered.*

Circulation.—The great central action of this remedy is upon the *heart and arteries*. Upon the *musculo-motor portion of the heart*, through its contained ganglia, it acts as a *stimulant*. Through the *vagi*, it *increases the activity of the inhibitory apparatus*; and, through the *vaso-motor centers* in the cord, it causes *contraction in the arterioles*.

Dr. Nunneley has made numerous experiments upon frogs with Digitaline and found the heart was thrown into violent and disorderly contractions, which quickly end in a cessation of the heart's movement. He says:

"1. The first visible effects on the heart occur a short time after the injection of a moderate dose under the skin of a frog, and consist in a diminished range of the heart's movements, while the organ itself appears somewhat shrunken. The most marked alteration, however, is a certain embarrassment and want of smoothness in the contractions, as if the separate muscular fibers

acted with undue energy, but in an irregular manner, or as if there was a want of co-ordination in the contractions of the individual fibers.

"2. The heart does not contract with greater frequency after a dose of Digitaline, and no change at all occurs in this respect until its action becomes embarrassed, when the frequency of pulsation is diminished, and does not again increase.

"3. The ventricular systole is lengthened; but it presents a very different appearance from the systole in health. The ventricle seems no longer to act as a single large muscle, but as if made up of numerous small ones, which contract energetically, but in an irregular and disorderly way; hence, there are projected bundles of contracted muscular fibers, which give the ventricle a rough and uneven surface, and an irregular outline. During the diastole, the ventricle does not everywhere assume a red color, but one or more red spots appear, as if the ventricle was so tightly compressed that only a small quantity of blood could enter by chance. Sometimes a red spot is elevated a little above the general surface, forming a kind of pouch. The spots become smaller and smaller, until at last the ventricle is left very pale, strongly contracted, and motionless, while the auricles are distended with blood. This state lasts from half a minute to one minute and a half, and the frog has paroxysmal gasping movements, with urgent dyspnœa, similar to the human being, where the cardiac dyspnœa occurs in fits."—*Ringer*.

Stille says: "Dr. John Moore early demonstrated the want of uniformity in the action of Digitalis on the pulse. By doses of one and a half grains, he caused his pulse to fall from 70 to 60 in two hours; from 60 to 50 in one hour and twenty minutes; from 66 to 58 in two hours and a quarter; and from 90 to 70 in about the same time. But, in several other experiments, there was no depression of the pulse; and in some it positively increased in frequency, while the experimenter suffered vertigo, confusion of mind, fullness of the head, drowsiness, salivation, nausea, diarrhœa, etc. By more than two thousand trials of its influence upon twenty-nine healthy persons, Saunders was led to the conclusion that the direct effect of small doses of the drug is to *increase* the strength and frequency of the pulse, and even to develop an inflammatory state of the system; yet, when once these effects were produced, if the dose was augmented, or continued at the previous dose, an astonishing slowness of the pulse and debility ensued. These results were corroborated by observation upon the sick, which showed, that, during the primary action of

the medicine, sores begin to heal, effusions are removed, and all the functions of the body are invigorated, the pulse gaining by degrees in strength and fullness until fever is excited, when the toxical phenomena display themselves, and the whole system is prostrated and deranged. About the same time Kinglake defended the same doctrine, denouncing the error of ascribing the diminished frequency of the pulse to debility of the heart produced by *Digitalis*. On the contrary, he maintained this slowness of the pulse is of the same tonic nature as that occasioned by Cinchona, by Opium, by wine, by nutritious food, refreshing sleep, tranquillity of mind, etc. Under all these circumstances, the pulse is not weaker because it is slower; on the contrary, the action of the heart and arteries being strengthened, their diastole is fuller and their systole stronger. Hence it may be concluded that *Digitalis*, in rendering the pulse slower, acts as a stimulant, and that it cures diseases due to debility by augmenting the motive power of the circulation. The bold experiments of Hutchinson illustrate in a striking manner the opposite action of *Digitalis*. They consist of three series. In the first of them, 60 drops of a tincture were taken (equal to five grains of the dried leaves), and the dose was repeated at intervals of six hours. Every day the quantity was increased, so that at the end of the third, it reached 380 drops for that day. The symptoms were chiefly these: Nausea, vomiting, craving for food; followed by pain in the stomach, salivation, diarrhoea, increased discharge of urine, unusual activity of mind, sleeplessness, some constriction of the head, and excitement bordering on delirium. These symptoms were followed by weariness, listlessness, and almost stupor. The pulse on the first day, became fuller and more frequent, rose to 100, second to 125, and the third day to 150, after which, and coincident with the symptoms of prostration, it fell to 60. The experimenter was confined to his bed for a fortnight; nor did he entirely recover for two months. Some time afterward the experiments were resumed, but with smaller doses; yet, by the end of a month, the daily dose of 2,220 drops was reached. The same symptoms as before occurred, but the pulse, which was at 80 when the experiments began, did not rise beyond 100, and retained its strength and fullness. In walking, it was faster twenty beats a minute than in a recumbent posture. Within three days after the conclusion of the experiments, it fell to 60 and was readily excited. The third series of experiments lasted sixteen days, the daily dose being gradually raised from 36 to 1,300 drops. When the dose reached 219 drops, the characteristic symptoms began to appear; but now

the pulse, instead of growing more frequent, fell gradually from 80 to 60, 50, 46, and at last 28. Until it reached the last-mentioned rate it continued strong and full; but at this point it became irregular and unequal."

Dr. C. D. F. Phillips says: "1. It is admitted on all hands that Digitalis is a cardiac poison; given in large doses, it brings the heart to a standstill.

"2. In doses which just fall short of a fatal effect, Digitalis produces fainting, diarrhoea, nausea, and vomiting, and irregularity of the heart's action.

"3. In still smaller doses, the heart's pulsation is much reduced in frequency, and the arterial blood-pressure is remarkably raised.

"4. Doses large enough to slow the heart's action usually reduce the temperature.

"Concerning the manner in which these effects are produced, there is, however, diversity of opinion. Traube put forward the theory that the action of Digitalis on the heart takes place through the medium of the vagus. This is at first stimulated, and exercises increased inhibitory action on the heart, reducing the number of its beats; after a time, however (with large or repeated doses), there is vagus-exhaustion, the result of which is fluttering, rapid, and irregular cardiac action. It is evident, nevertheless, that the slowing action of Digitalis is not exerted through the vagus center, since it is manifested in animals in which the trunks of the vagi have previously been divided; and on this ground, chiefly, certain authors have denied its action on the vagus altogether. Yet, it can hardly be disputed that Digitalis acts on the vagus, though only on its peripheral cardiac branches; for, when Atropine (which has the power to paralyze the vagus down to its very terminal twigs) has been previously administered to an animal, it is found that Digitalis fails to slow the heart. Such is the argument of Traube, though disputed by various writers. The theory of direct stimulation of the cardiac ganglia giving rise to increased propulsive action of the heart and overcoming the resistance of the inhibitory vagus branches, was put forward by Dybkowsky and Pelikan, supported by Handfield Jones and Fuller, and accepted by Fothergill. And the experiments of Eulenberg and Ehrenhaus, who plunged the separated, but still pulsating, hearts of frogs into a solution of Digitaline, and observed strengthening of the contractions, and reduction of the frequency of the beats, are considered by Ringer to prove that the effect of Digitalis is not due to any action on the pneu-

mogastric nerve. One of the most recent writers on Digitalis, Prof. Ackermann, supports the theory of Traube; and, indeed, it is difficult to see how the evidence afforded by the experiment of Bezold and Bloebaum with Atropine can be set aside. Granting, however, that there is no action on the vagus, and that the primary excitement and subsequent exhaustion of the vagus terminals account, in part, for the slowing and subsequent irregularity of the heart's action, there is no particular reason for denying the possibility of a simultaneous stimulation of the cardiac ganglia. There is, moreover, a considerable body of evidence tending to show that the muscular walls of the ventricles pass gradually into a tetanized condition, and are found so after death.

"One of the most indisputable facts respecting the action of Digitalis, is the remarkable increase of blood-pressure which it occasions in the arteries. Of this fact, again, different explanations are possible. Nearly all experimenters admit that Digitalis produces contraction of the capillaries of the smaller arterioles, when taken into the general circulation; and this in itself would undoubtedly heighten the arterial pressure. But, on the other hand, the blood-pressure may be heightened by increased force of the cardiac contractions; and the observation of Meyer, that there is a continuous rise in the pressure up to a point almost immediately before death, when it suddenly falls to zero, has been made by Dybkowsky one of the chief arguments for the direct stimulation of the cardiac ganglia.

"As for the contraction of the small arteries, this is believed by Traube and Bomen to depend on excitation of the vaso-motor center in the medulla oblongata; but Ackermann discredits this idea, and holds that the contraction is due to direct action on the peripheral ends of the vaso-motor nerves, or even on the muscular coats of the arteries themselves."

"The researches of M. Claude Bernard show that Digitalis is one of the poisons which act directly upon the muscular tissue, paralyzing and killing it. It affects that portion of muscular tissue which constitutes the heart earlier than any other, so that, in cold-blooded animals (as frogs), the heart's action may cease for four hours before general death ensues, there being thus a dead heart in a living body. *Rigor mortis* sets in exceedingly early; and, on opening the thorax immediately after death, the heart is found contracted, rigid, motionless, and totally empty. A farther examination discloses remarkable chemical and electrical changes in the heart and other muscles. The muscular

juice is acid instead of alkaline, and the external surface is electrically negative instead of the normally positive. The immediate cause of this phenomenon has been shown to be the change of the muscular juice from alkaline to acid; and this very change is involved in the destructive action of the drug upon the integrity of the muscular tissue."—*Hughes*.

Pneumogastric Nerve.—"The sickness excited by Digitalis is extremely different from that occasioned by almost every other medicine. It is peculiarly distressing to the patient; it ceases, and returns again as violently as before; and thus it will continue to recur for three or four days, at more and more distant intervals. These sufferings are generally rewarded by a return of appetite much greater than existed before the medicine was taken. Lettsom says the sickness it produces is very like the effects of tobacco, and resembles sea-sickness. A languor is diffused throughout the whole system; the extremities, the hands particularly, become moist and clammy, and feel cold to the touch; there is a confused aching and heaviness of the head; flashes of light frequently pass before the eyes, or almost all objects appear brilliant; and sometimes, after these symptoms pass off, the sight remains impaired for several weeks."—*Stille*.

Digitalis not only acts upon the central origin of the vagus, but paralyzes it down to its very terminal twigs; but its emetic action, that is so prominent among the effects of this poison, is caused by its influence upon the base of the vagus in the medulla oblongata. The paralytic action of Digitalis upon the vagi is also shown in the lungs by passive congestion, and by the bronchial mucous membrane becoming loaded with mucus, producing a loose, rattling cough, with an abundance of mucous expectoration, dyspnoea, etc.

Urinary Organs.—The influence of Digitalis upon the urinary secretion in health and disease, has been carefully studied by numerous observers; and, though not yet fully settled, about all agree that in health it acts as a mild diuretic, by increasing the arterial blood-pressure in the kidneys and acting especially on the Malpighian bodies. Dr. Ringer says: "Digitalis is a diuretic, acting directly on the kidneys, as well as indirectly through its influence on the heart, and is therefore useful in some cases of Bright's disease. When it lessens the cardiac disease, its diuretic effects are astonishing. I have been led to believe that the diuretic action of Digitalis is limited by dropsy; for, when the

dropsy disappears, the remedy no longer causes an increased secretion of urine.

"How does Digitalis in certain heart diseases cause so great an increase in the quantity of urine? First, it removes those kidney conditions secondary to the heart disease, which diminish the kidney function, when the unburdened organ acts as in health and secretes a natural quantity. But, in the cases now referred to, we find the urine increased, from perhaps half a pint to three, four, or even eight pints daily. Is this excess of urine due to the direct action of Digitalis on the kidneys? Were this the true explanation, then this excessive secretion should continue as long as the Digitalis is administered; but we find, as I have said, that, when the dropsy has disappeared, the kidneys no longer secrete in excess. The copious flow of urine must be explained by the fact that Digitalis, by relieving the heart, checks the conditions that produce dropsy, when the dropsical fluid returns quickly into the circulation, and the kidneys eliminate the excessive quantity of water in the blood.

"The separation of the water of the urine is effected chiefly through the Malpighian bodies, probably by simple filtration; and, therefore, the amount of the secretion depends on the lateral pressure in the blood-vessels of the glomeruli. In tricuspid regurgitation, the passage of blood from the arteries to the veins is very slow; in fact, it partially stagnates. The blood, on reaching the glomeruli, loses much of its water by pressure; but, having reached a certain degree of concentration, the further separation of water is much slower. In order to get a rapid filtration of water through the Malpighian bodies, it is necessary not only that there should be high arterial pressure, but also a rapid flow of blood. It appears to me, that, in venous engorgement, we have both high lateral pressure and a slow flow of blood, and that Digitalis acts by removing (venous) congestion, and allowing a free circulation through the kidneys."

Through its vaso-motor stimulation, the circulation is greatly increased; and this increases the kidney blood-pressure, and causes rapid elimination of the dropsical effusions. Digitalis also greatly diminishes the amount of urea, the chlorides, phosphoric acid, and sulphuric acid. In some rare instances it has produced strangury, with incessant desire to urinate.

Digestive Organs.—Digitalis produces a copious flow of saliva, and salivation; and, by its action on the mucous membrane of the stomach and descending colon, it produces conges-

tion and inflammation, with nausea, vomiting, colic, and watery, mucous stools; but the characteristic stool of *Digitalis* is white and ash colored. This ash-colored or white stool is caused by the secretions of the follicles of the colon being vitiated; for it is the function of these follicles to color the feces brown. *Digitalis* so affects the liver as to produce real jaundice.

Sexual Organs, Male.—Small doses excite the male genital organs, causing titillation of the glans penis, erections, and seminal emissions. Large doses produce profound prostration of the sexual appetite.

Sexual Organs, Female.—Sense of bearing-down in the pelvis, with energetic muscular contraction of the uterus.

Cerebro-Spinal System.—*Digitalis* produces congestion of the brain, with giddiness, headache, delirium; and, in large doses, complete coma, with great irritation of the pneumogastric nerve.

Eyes.—Dimness of sight, great dilatation of the pupil; optical phantasms, as sparks flying through the air, chromatopsia, similar to Santonine; objects look green, red, or yellow. It has proved useful in detachment of the retina, and inflammation of the Meibomian glands.

Spinal Cord.—The reflex functions of the cord are greatly lessened. It lowers the sensibility of the motor and sensory nerves, and impairs the electro-contraction of the muscles. "In toxic doses, it lowers reflex activity, and induces lassitude, prostration, muscular tremblings, and sometimes convulsions. That the muscles themselves are affected, has been proven by the researches of Vulpian, Dybkowsky, Pelikan, and of Gourvat; all of whom have found that the muscles of frogs poisoned with *Digitalis* respond more feebly than is normal to galvanic currents. The nervous tissue has, however, been found by Gourvat to be more susceptible than the muscular, the nerves losing their functional power sooner and more completely than the muscles."—*Wood*.

"Dr. A. Weil concludes that *Digitalis* first lessens reflex activity by directly—i. e., independently of its action on the circulation—exciting the inhibitory reflex centers of Setschenow, and after a time by directly paralyzing the spinal cord. The experiments upon which this conclusion was based are divided into two series; in the first of which it was found, that, after small toxic

doses, great diminution in the reflex activity of the frog was apparent in from ten to twenty minutes, and continued until the death of the batrachian; but that this diminution for from twenty-five minutes to an hour was immediately suspended by section of the cord high up, the reflex activity returning at once to its normal state; that, after large doses, the reflex movements were almost abolished in five minutes, and continued until death, but at any time during the first ten or twenty could at once be restored by section of the upper cord; that, both after large and small toxic doses, a time finally came when division of the cord had no power to restore the lost reflex functions."—*H. C. Wood.*

Temperature.—Toxic doses of Digitalis greatly lower the temperature in healthy men and animals. Dr. C. D. Phillips says: "Another interesting question concerns the cause of the reduction of temperature which is so marked and constant an effect of Digitalis. This is probably due to an increased rapidity of circulation in the peripheral blood-vessels; for it must not be supposed that the slow pulsations of the heart indicate a diminished rapidity of the blood-current; on the contrary, their increased vigor causes the blood to circulate with abnormal swiftness; this causes increased transpiration, and a large loss of heat from the skin."

Therapeutic Individuality.

In about all diseases in which Digitalis will be found useful, the heart will be more or less involved, accompanied with slow, irregular or intermittent pulse, excited by the least movement.

The least movement produces violent palpitation of the heart; intermitting the third, fifth, or seventh beat.

"A sensation as if the heart would stop beating if she moved, with fear of impending death."—*Hale.*

Frequent stitches in the region of the heart.

"Dropsy in organic diseases of the heart, and in anasarca following scarlatina."—*Marcy and Hunt.*

"I have regarded it as a cardiac tonic in disease, because it is a cardiac debilitant in health, and have used it accordingly. Simple enfeeblement of the muscular walls of the heart has seemed to me a very common condition. Vertigo, tendency to syncope, breathlessness on exertion, and palpitation find in Digitalis a potent and rarely failing remedy. Again, the slow pulse of the drug, seized upon by Hahnemann's penetration as the characteris-

tic feature of its action, has often led to its successful use."—*Dr. R. Hughes.*

"Cardiac dropsy, which may be extensive. The breathing is much distressed in the earlier stages of this condition, only periodically, and especially at night; and, when this reaches its worst stage, the breathing is continually bad, although it becomes paroxysmally worse. The patient can not lie down in bed, and is obliged to sit in a chair, with the head either thrown back, or more rarely leaning forward on some support. The jugular veins are distended, and the face is dusky and livid; the pulse is very frequent, feeble, fluttering, and irregular; urine scanty, high colored, and deposits copiously on cooling. The heart is seen and felt to beat over a too extensive area. Its impulse is sometimes at one spot of the chest, and sometimes at another. The impulse is undulating, very irregular and intermittent. Physical examination shows great dilatation of the left ventricle, with often much hypertrophy. A murmur is heard, having the characters of one produced by mitral regurgitant disease; and there may be disease of the aortic valves."—*Sydney Ringer.*

Just here let me suggest that the fluid extract or a decoction is the best form to use in dropsical effusions.

In cardiac irritability from muscular weakness dependent upon exhaustion of the inhibitory nerves, Digitalis is a stimulus to its nutrition, and cures it at once.

Dr. Hale says it is indicated in all the varieties of hypertrophy with dilatation, whatever the cause may be, or in any condition of the heart where its muscular power is especially deficient, with quick, weak, irregular, or intermittent pulse; increased or deficient *action* of the heart, with *deficient force* or impulse; cough, hæmoptysis, jaundice, alternate scanty and profuse urine, sometimes albuminous; œdema of the feet, legs, face, and scrotum, ending in general anasarca; sighing respiration, with sinking, weak feeling at the pit of the stomach, and sometimes vertigo with amaurosis.

Lungs.—For coughs, with profuse, loose purulent expectoration, it is one of the most useful remedies in the *Materia Medica*, given in the 2d or 3d trituration of the Digitaline.

Asthma, with much rattling mucus in the lungs; rapid respiration; compelled to lie perfectly quiet, worse in cold air.

"Chronic bronchitis, and interstitial pneumonia, with difficulty in breathing, dilatation of the right cavities of the heart, and general anasarca."—*Dr. Bartholow.*

In hæmoptysis from pulmonary congestion caused by mitral regurgitation, it contracts the arterioles and slows the heart.

Digestive Organs.—Profuse flow of frothy saliva, stinging in the throat between the acts of deglutition.

"Nausea as if she would die, more in the morning."—*G.*

"Motion produces vomiting and great faintness."—*G.* [Hydrocephalus.]

"Smell of food excites violent nausea, with clean tongue, thirst for water, and absence of fever."—*G.*

"Tendency to nausea, without real nausea."—*Raue.*

Feeling of goneness in the stomach as if he would die, with deathly nausea and vomiting. (Cerebral irritation.)

Nausea, and vomiting of food and green bilious matter.

Whitish or ashy-gray stools, or yellowish, filled with mucus.

General jaundice, with constipation, or ash-colored stools.

The stools are extremely white in *Digitalis* cases.

Urine.—Scanty, thick, turbid, and black.

Profuse and frequent emission of clear, pale urine. In dropsy.

Constant desire to urinate, with scanty discharge each time.

Much brick-dust sediment in the urine.

Sexual Organs, Male.—"No drug diminishes and arrests nocturnal emissions with as much promptitude as *Digitaline*. The dose is one grain of the 2d or 3d trituration every morning or every third morning. It should not be given in the evening, or it may disturb sleep."—*Bachr.* [I can testify to the great value of *Digitaline* in spermatorrhœa attended with great sadness and utter despair.]

"Nightly emissions, with great weakness of the genitals."—*Hg.*
Hydrocele, and general anasarca.

Sexual Organs, Female.—Labor-like pains in the abdomen and back before the menses, with cold feet and hands.

Menorrhagia and metrorrhagia, with irritable heart.

Sudden flushes during the climacteric.

Head.—Desponding and fearful; great apprehension of the future; much vertigo when walking.

Longs to be alone; tearfulness; from troubled conscience.

Lascivious fancies day and night, with nocturnal emissions.

Vertigo, with trembling and slow or intermittent pulse.

Bloating and paleness of the face; cardiac dropsy.

In delirium tremens, the brain being anæmic, with effusion and œdema, excessively large doses, one tablespoonful every four hours, have made wonderful cures.

Fever.—In fevers that call for Digitalis, the chill predominates; sudden flushes of heat, with great weakness.

Chilliness and shivering over the whole body.

Chill and heat alternately; cold sweat at night.

Great sensitiveness to cold, from anæmia.

Excessive coldness of the hands and feet, with cold sweat.

Sudden flushes of heat followed by weakness.

One hand hot, and the other cold; cold, clammy perspiration.

Cold, clammy sweat at night; more on face and chest.

During the climacteric, sudden flushes of heat, followed by great debility, irregular pulse; least motion brings on palpitation.

General debility, with tendency to faint and perspire; the lower limbs are very heavy, with great infiltration of serum.

"Digitalis is one of the most useful remedies in dropsy which we possess, especially if it be from stenosis of the heart and arteries, or renal (with much general anasarca). As a rule, the best form to administer it is the infusion. Several days may elapse before decisive results are achieved; but the flow of urine is then often enormous."—*Bartholow*.

Aggravation.—Chest symptoms when lying down, or by motion; from cold or a very warm room; and after sleep.

Amelioration.—Forenoons; during rest, and in warm air.

DIOSCOREA VILLOSA.

Wild Yam Root.

Habitat: America, etc. Tincture of the green root, Class III.

Antidotes.—Colocynth, Chamomilla, Chloroform, and Camphor.

Through the spinal nerves and abdominal sympathetic, Dioscorea has three special centers of action:

- I. DIGESTIVE ORGANS. *Intense Neuroses of the Bowels.*
- II. LIVER. *Portal Congestion, with Torpor.*
- III. SPINE. *Exalted Reflex Excitability; Paralysis.*

Abdominal Viscera.—Through the posterior spinal nerves, and especially the hypogastric plexus, Dioscorea produces neuroses of the bowels. The hyperæsthesia of the abdominal sentient nerves is most intensely marked, as was shown in the colic. During my proving, the colicky pains in the umbilical and hypogastric region were so severe that I had to take Chloroform to prevent having spasms. Constipation and hæmorrhoids are most prominent symptoms. It takes massive doses to produce nausea and vomiting; but great faintness centering at the pit of the stomach, probably indicates profound irritation of the solar plexus.

Liver.—A rheumatic or neuralgic condition of the liver is well marked in the provings of this remedy. The hard, dry, black stools, the characteristic stool of Dioscorea, indicate a diminution of bile; but very large doses produce increased secretion of bile, as indicated by the papescent, yellow, loose stools.

Spine.—Upon the spinal cord, it has a specific action, as shown by the great weariness and loss of strength; constant trembling of the hands and legs; disposition to yawn and stretch. The reflex excitability of the spinal cord is greatly exalted, as shown by pains in almost every part of the body.

Therapeutic Individuality.

Digestive Organs.—The grand sphere for the use of Dioscorea is among the neuroses of the bowels and stomach, in which the coeliac and umbilical plexuses of nerves are in a great state of hyperæsthesia, and the pain and spasm are unbearable.

"Steady, twisting pains in the bowels; worse when lying down."—*Helmuth*.

Intense spasmodic colic, with nausea and bilious vomiting.

Colic that comes on suddenly, and leaves suddenly.

"Spasmodic colic, with much flatulence."—*Hale*.

Pulsating pains in the upper part of the sternum.

Great burning distress in the stomach, with pricking pains.

Great faintness at the pit of the stomach.

Constant heavy pain in the pit of the stomach; worse after eating, which is relieved with copious eructations of air.

Distressing pyrosis (W. T. Helmuth), with gastralgia.

Spasmodic pains in abdomen, with unusually severe tenesmus.

Morning diarrhœa; stools dark and fetid.

"Dysentery, with violent lancinating pains in the bowels."—

Dr. Rogers.

Catarrhal mucous enteritis, with severe colic and tenesmus.

Profuse deep yellow, thin stool, followed by a very weak, faint feeling, without relieving the pain in the bowels

Just before and during stool, severe pain in the sacral region and bowels, of a writhing, drawing character. The pains radiate upward and downward, until the whole body and extremities become involved in spasm.

Colic, diarrhœa, and dysentery, where pain and spasm are the leading symptoms, are the great field for Dioscorea.

Sexual Organs, Male.—Nocturnal emissions, with pain and spasm of the spermatic cord, with profound debility of the organs.

DULCAMARA.

Bitter Sweet.

Habitat: Europe, Asia, China, America, etc. Tincture of fresh leaves and twigs before inflorescence. Class I.

Antidotes. —Camph., Ipec., Cupr., Merc., Rhus, Acon., Sulph.

Through the cerebro-spinal nervous system, Dulcamara has five special centers of action:

- I. CERE BRO-SPINAL SYSTEM. *Convulsions; Paralysis.*
- II. MUCOUS MEMBRANES. *Catarrhal Inflammation.*
- III. KIDNEYS. *Increased Blood-Pressure; Albuminuria; Catarrh.*
- IV. SKIN. *Erythema, Urticaria, Vesicular Eczema.*
- V. SEROUS MEMBRANES. *Rheumatoid Inflammation.*

Cerebro-Spinal System.—This remedy is a mild narcotic, as many cases of poisoning have shown. It produces tremors, convulsions, dilatation of the pupil, vertigo, hurried respiration, tetanic convulsions, and death.

"Caylus says that Solania exerts a depressing or paralyzing action upon the medulla oblongata, but acts as a stimulant to the nerves; it paralyzes the nerves of respiration, as Conia and Nicotia do. The vomiting which Clarus suffered in his experiments upon himself, seemed connected with the nervous system, and not at all with the stomach. Two very important phenomena were observed, the one of neurotic, the other of an irritant, character. The first was that the respiration became much slower, the heart's action much quicker, though at the same time feebler. Since this curious antagonism is also caused by division of the vagi in the neck, Prof. Clarus infers that Dulcamara acts by depressing these very nerves. Such depression is also indicated by the filling of the pulmonary tissue with a serous exudation, and the emphysematous distention of isolated portions of the lungs, which were observed in the rabbits killed by Solania. Other symptoms also indicate an action on the medulla oblongata, as vomiting long after taking the drug, spasms of the thoracic muscles extending to those of the extremities, snapping of the

jaws, and a pendulum-like motion of the head. After death the membranes of the medulla, and the parts just above and below it, were found highly injected, but the nervous substance itself healthy."—*Hughes*.

Mucous Membranes.—Dulcamara acts upon the mucous membranes of the lungs and kidneys, producing catarrhal inflammation, similar to that caused by damp, rainy weather; and, if used as a prophylactic after exposure to damp, rainy weather, it will ward off all bad effects.

In the intestines, it produces catarrhal irritation, with pinching, colicky pains, and a watery, slimy, yellowish diarrhœa.

Urinary Organs.—Congestion of the kidneys, with albuminous urine, has often been produced by Dulcamara. In Clarus' experiments, hyperæmia of the kidneys, with albuminous urine, and in some cases inflammation, was produced. Some claim that it will produce Bright's disease; but I do not believe it will produce anything more than hyperæmia of the kidney.

Skin.—*Hughes* says: "Its only certain cutaneous action is to excite erythematous and urticarious rashes, and pruritus; and it is in urticaria, and in such forms of impetigo as crusta lactea, that it has found place in Homœopathic practice."

It produces elevated spots like flea-bites all over the body, with violent itching.

Most of the Dulcamara in market is spurious, and can not be depended upon; but, when a good article is used, it is a very valuable remedy.

Therapeutic Individuality.

Effects of Cold and Damp.—Dulcamara is especially adapted to catarrhal and rheumatic diseases brought on by cold, damp, rainy weather.

"The symptoms are aggravated when the weather suddenly becomes colder, especially if the weather is damp."—*G.*

"The child gets worse at every cold change in the weather, or from exposure to cold air."—*G.*

"All her symptoms are aggravated by a cold change in the weather; even the sexual desire is greatly increased."—*G.*

"Retrocession of the eruption from exposure to damp, cold air."—*G.*

"The skin is delicate, and sensitive to cold, and liable to eruptions from being long exposed to the cold."—*G.*

"Every time she takes cold, has urticaria or some other eruption."—*G.*

"Dropsical affections, after suppression of sweat by cold, damp air."—*Hg.*

"From taking cold, the neck stiff, the back painful, the bones lame."—*Hg.* [With drawing, tearing pains.]

Digestive Organs.—"If cold air chills him, his tongue gets lame, and even the jaws."—*Hg.*

"Inarticulate speaking from a swollen tongue, but talks incessantly."—*Hg.*

"Increased secretions of the mucous membranes and glands, those of the skin being suppressed."—*Lippe.*

"Diarrhœa in cold, damp weather; stools mucous, green, watery, and whitish; may be caused from repelled eruptions, chills, or teething."—*G.*

"Stool, yellowish, greenish, watery, whitish watery, with flocculi; white mucous; green mucous; slimy mucous and bloody."—*J. B. Bell.*

Diarrhœa from change in the weather from warm to cold. (At the beginning of the attack, it is the all-sufficient remedy.)

"Dysentery caused by cold and damp, and becoming worse as the weather grows colder."—*G.*

Sexual Organs, Female.—Suppression of the menses by damp, cold weather.

"Always as a forerunner of the catamenia, a rash appears on the skin."—*Goswich.*

"Lochia suppressed by cold or dampness; and the quantity of milk much diminished."—*G.*

Lungs.—"They have to cough a long time to expel phlegm, especially in infants and old people, from threatened paralysis in the vagi."—*Hughes.*

"Oppression of the chest from mucus."—*Lippe.*

"Cough with expectoration of bright blood."—*Lippe.*

"Early stage of colds, with short, hacking cough and slight sore throat."—*Dr. Bayes.*

"Cough with excessive secretion of mucus from suppressed eruptions."—*D.*

Skin.—Vesicular eruption, discharging profusely, upon a red, inflamed base; acute rheumatic eczema.

"Tetters, oozing watery fluid; bleed after scratching."—*Hg.*

"Thick brown herpetic crusts on the face, forehead, temples, and chin, with reddish borders, bleeding when scratched."—*G.*

"Nettle-rash with much itching; after scratching, it burns, increases in warmth; disappears in cold; with gastric fever."—*Hg.*

"Small furuncles in places formerly hurt by concussion."—*Dr. Jeanes.*

"Exostoses on the upper part of the right tibia, with bluish-red spots, suppurating lumps."—*Hg.*

"After the disappearance of tetters in the face, faceache and asthma."—*Hg.*

"Tingling in different parts of the body, and sometimes a pruritus of the genital organs."—*Dr. Bertrand.*

"Eruption of itching pustules, which pass on to suppuration and become incrustated, upon the back and legs."—*Jahr.*

"My principal remedy for impetiginous eczema of scrofulous people is Dulcamara."—*Jousset.*

Head.—"On awaking in the morning, giddy; dark before the eyes, with trembling and weakness."—*Hg.*

"Inclination to scold, without being angry."—*Hg.*

"Can not find the right word for anything."—*Hg.*

Eyes.—"Ophthalmia neonatorum, with chemosis of the conjunctiva, and constipation."—*Dr. Wesselhæft.*

Catarrhal and rheumatic ophthalmia.

Aggravation.—Symptoms always aggravated by cold, damp weather; evenings, and during rest.

Amelioration.—From warm, dry air; from moving, and during the day.

ETHER.

Sulphuric Ether.

Chemical preparation. Alcoholic attenuations.

Through the cerebro-spinal nervous system, Ether has seven special centers of action :

- I. CERE BRO-SPINAL SYSTEM. *Complete Anæsthesia, Acinesia.*
- II. CIRCULATION. *Vaso-Motor Stimulation.*
- III. HEART. *Stimulated; Increased Arterial Blood-Pressure.*
- IV. VAGI. *First, Stimulation; Second, Paralysis and Asphyxia.*
- V. GLANDULAR S. *Secretions Increased. (LIVER.) Glycosuria.*
- VI. SEXUAL ORGANS. *Excessive Erotic Excitement.*
- VII. SKIN. *Copious Perspiration; Complete Anæsthesia.*

Cerebro-Spinal Nervous System.—Through the nerve centers of man and animals, Ether acts upon the various parts of the cerebro-spinal system in the following order, and abolishes their functions: 1. The cerebrum. 2. The sensory nerves of the cord. 3. The motor centers of the cord. 4. The sensory centers of the medulla oblongata. 5. The motor centers of the medulla.

Ether, when first inhaled, produces a feeling of strangulation and a sense of burning in the fauces, from its local action. "The first indications of its systemic action are a sense of exhilaration and a lightness in the head, associated with a roaring or buzzing in the ears. These are soon succeeded by a feeling of the immediate surroundings being afar off, and this soon fades into semi-unconsciousness, with visions and illusions. These are of various characters, and are often accompanied by a species of delirium. Some patients weep, others laugh; some shout, some pray, some rave, and some become exceedingly pugnacious. In rare instances, the dreams become erotic; and cases are on record in which there were distinct evidences of the occurrence of a complete venereal orgasm. There is rarely sufficient anæsthesia for practical purposes before the period of complete unconsciousness.

"The second stage of Ether-narcosis may be considered to commence with the complete loss of consciousness. In most cases, some degree of muscular rigidity is at first still present, but soon passes off, and the patient lies relaxed and quiet, with slow, regular, automatic respiration. The occurrence of stertorous respiration, due to a paresis of the muscles of the palate, shows that the stage of muscular paralysis is being reached. It should, except in very rare cases, be the signal for the immediate withdrawal of the anæsthetic.

"The face during Etherization is reddish; marked pallor and lividity are respectively important indications of failure of the heart's action and failure of respiration. The stage of excitement generally lasts only a few minutes, but in some cases is prolonged, and in nervous women may pass into a violent fit of hysterics, which soon yields, however, to a persistent use of the anæsthetic. The pulse is quickened and increased in force by Ether; and it will often maintain itself during a prolonged narcosis. If the vapor of Ether be taken in a concentrated form, there is usually in the beginning a momentary arrest of respiration, accompanied by a decided sense of suffocation, evidently the result of the irritant action of the vapor upon the air-passages. So soon as this has passed off, the respirations are usually accelerated as well as deepened; but, as the stage of anæsthesia is reached, they become slower; and, if the inhalation of the Ether be persisted in, they grow not only more and more distant, but also more and more shallow, until they are gradually extinguished. The respiratory phenomena seem to be the same in the lower mammalia as in man. It was noticed by Kratschmer, that in the rabbit, Ether, when inhaled through the nose, produces at first a momentary arrest of respiration in expiration. He also found that section of the vagi did not prevent the arrest, but that section of the trigemini did; also that the arrest never occurred when the Ether was given through a tracheal fistula. This would appear to show that the phenomenon was a reflex one, due to the irritation of the peripheral ends of the trigemini. Its importance is much increased by the consentaneous spasm of the glottis noticed by Kratschmer. It is probable that some of the accidents happening early in human anæsthesia are the result of such spasm. As stated by Dr. P. Knoll, the alterations of respiration are sometimes replaced by very irregular breathing. The respirations are at first quickened, then grow slower and slower, and less and less deep, until they are gradually extinguished. He logically concludes that they are produced by

a direct action of the drug upon the centers, at first stimulant in character, but subsequently depressant.

"As the functions of the cerebrum are affected before those of the other portions of the nervous system, it is very apparent that the brain is especially sensitive to the narcotic. Flourens found that at a certain stage of Etherization, pricking of the anterior or motor nerve roots caused motor disturbance, although the posterior or sensory portions of the spinal centers were completely insensible. After a more prolonged inhalation, the anterior or motor centers also failed to respond to mechanical irritation, although the functions of the medulla oblongata were regularly performed, and stimulation of its anterior centers gave rise to motor disturbance, and pricking of the sensory portions even caused manifestations of pain. When the inhalation of Ether was maintained for a sufficient time, the sensory, and finally the motor, functions of the medulla oblongata were compromised, and death from paralysis of the respiratory centers ensued.

"That Ether is capable of impressing the nerves seems established by the experiments of Longet and Serres. They found that the direct application of Ether to a nerve produced paralysis of the sensory fibers of that nerve; so that pinching the nerve below the point of application caused no pain, although voluntary movement was preserved, and galvanization of the nerve-trunk above the point of application induced spasm in the tributary muscle; i. e., the power of conducting an impulse downward was preserved, that of conducting it upward was lost. By a longer application of the anæsthetic, the function of the efferent as well as of the afferent fibers was abolished, temporarily at first, but, if the application were persisted in, permanently. Practically, however, inhaled Ether has no influence upon the nerve-trunks, because the *nerve centers are so much more sensitive* to its influence that their *functional power* is abolished before the nerves are affected. Indeed, Conly found, that, in animals killed by Ether, Chloroform, or Chloral, the motor nerves and muscles preserve their function longer than in animals killed by sudden violence."

—Dr. H. C. Wood.

Claude Bernard supposes that when anæsthesia is complete a sort of semicoagulation occurs in the nerve-cell, but that this semicoagulation soon ceases, allowing the nerve to resume all its properties. If we examine a nerve in an animal under anæsthesia, we find that the tube momentarily loses its transparency.

"Anæsthesia begins with the peripheral extremities of the sensory nerves and ascends progressively. If, at this time, we pinch the skin, we find it insensible, and we say that the patient is anæsthetized. Yet, if the operation attacks the trunk of the nerves, the patient still feels pain, as the sensibility of the trunks is not extinct; this is very often observed in operations. In proportion as the anæsthesia makes progress, the nerve-trunks lose their sensibility, and soon the posterior roots become insensible. Finally the cells of the posterior gray cornua are affected, and anæsthesia is complete. All the sensitive nerves are made insensible by anæsthetics, but not all at once. The nerves of special sense are the first to be affected, next the nerves of common sensibility, which are excitable by touch and are capable of transmitting impressions of pain. Further, the nerves which terminate in the skin are affected before those of the mucous membrane, so that the throat is sensitive after the skin has ceased to be so."—*Drs. A. Trousseau and Pidoux.*

Ether, when taken internally, is a diffusive stimulant, producing intoxication with great rapidity, which passes away just as rapidly. The great excitement and exhilaration may be succeeded in an hour by perfect recovery.

Circulation.—The English Chloroform Committee have shown that Ether "increases very markedly the arterial pressure, and that, even in a prolonged Ether-narcosis, there is no material diminution of this pressure until manifest failure of respiration has taken place. The rise of arterial pressure is probably due to an increase of the power of the heart and to a stimulation of the vaso-motor nerves. Sansom states that the vessels of the frog's web can be seen to contract during the inhalation of Ether, and that this vaso-motor spasm is very persistent, and does not yield to paralysis and passive dilatation until the anæsthesia has almost deepened into death."—*Dr. H. C. Wood.*

After a long series of experiments by M. Arloing, he says "that the pulmonary circulation is rendered more active by Chloral and Ether, while it is retarded by Chloroform. It was also noted that the following changes occurred in the peripheral circulation: (1.) The flow of blood in the capillaries, which was slightly slowed at the commencement of Chloralization and Etherization, was much accelerated toward the end of the anæsthesia. (2.) The flow, after undergoing a temporary increase in rate, diminished at the beginning of Chloroform-narcosis; it afterward, however, increased gradually, though it did not regain its

normal rapidity. It was also found that Chloroform produced *anæmia of the cerebral vessels*, while Ether and Chloral caused *hyperæmia of the brain*."—*Practitioner*.

Pneumogastric Nerve.—The first effect of Ether is to stimulate the pneumogastric nerve; but, when it proves fatal, death is caused by paralysis of the respiratory centers, as shown by the sudden stoppage of the breathing, and asphyxia; or stertorous breathing precedes death, the respirations being very irregular, with great dilatation of the pupils from non-oxygenation of the blood.

Heart.—The action of Ether upon the heart is that of a tonic; even in fatal cases, the heart continues to pulsate after the arrest of breathing. This stimulant action of Ether upon the heart has caused its use to be warmly advocated as in all respects superior to Chloroform. Ether rarely ever primarily paralyzes the heart, and its only dangerous effect—stoppage of respiration—is easily foreseen, and readily and surely relieved by simply removing the anæsthetic and making a few passes of artificial respiration.

Blood.—It is frequently asserted that Ether, when added to blood, coagulates it. A. Schmidt, however, states that the coagulation is due to ozone, which has been generated by the Ether and is contained in it; since freshly distilled Ether does not coagulate albuminous substances. The researches of Wittich and A. Schmidt have shown, that, when Ether is added to the blood of horses, cats, or rats, the red corpuscles disappear in a very short time; and, as their stroma can not be demonstrated by the aid of re-agents, this disappearance is due to its solution. The hæmatin thus set free is dissolved in the serum, but the presence of the Ether soon causes it to crystallize. There is no proof that these changes occur to any extent when Ether is inhaled; and the usual rapid recovery from the effects of the anæsthetic indicates that there is no profound alteration of the blood. The effect of Ether on the gases contained in drawn blood indicates that Ether does not exert much influence upon their proportional amounts."—*Dr. H. C. Wood*.

Glandular System.—"Claude Bernard has shown that the functions of secreting organs are rendered more active by Ether when this substance is applied in or near the locality of their excretory ducts. For example, the gastric juice, the pancreatic juice, saliva, etc., are much increased in quantity when it is given internally to animals. Glycosuria is very commonly, though not

constantly, produced by Ether. Whether we consider, with Claude Bernard, that this symptom is to be regarded as a phenomenon of irritation, and as the expression of an increased secretory activity of the liver, or whether, with Austie, we should regard it as a sign of weakened functions, a sort of paralysis or narcosis of the liver, we will not attempt to decide. In any case, the production of diabetes by Ether must be classed along with the other forms of diabetes due to the action of poisons, regarding which we unfortunately as yet know very little."—*Prof. Boehm.*

Sexual Organs.—Ether has frequently produced erotic dreams during its administration; and the patient goes through all the motions of a complete venereal orgasm. These erotic impressions in females often follow the patient after the Ether narcosis has ceased; and they fully believe that liberties have been taken with them by the physician. This should warn the surgeon never to administer an anæsthetic without the presence of a third party.

Skin.—With the anæsthesia, there is frequently copious perspiration in Ether-narcosis.

When death is threatened, the treatment must be similar to that of poisoning by Chloroform, which the reader will please see on page 268.

Therapeutic Individuality.

Administration.—For using Ether as an anæsthetic, a cone is made out of stiff paper of such size and shape that its base will fit closely over the mouth and nose of the patient. A napkin, towel, or a conical, hollowed-out sponge is placed in the cone. It should be securely pinned within the cone sufficiently far from the margin to prevent contact with the nose during inhalation. Now pour into the cone about one and a half ounces of Ether, and apply it closely to the face of the patient so as to completely cover the mouth and nose, *and keep it there.* If anæsthesia is not complete in five minutes, a second dose of Ether must be poured upon the napkin, care being taken that the removal of the apparatus is only momentary. It is very important that no air be admitted during the administration of Ether, as most violent resistance and dangerous struggling will supervene if the vapor be not inhaled in a state of purity. By preventing the access of fresh air, and allowing the same air to be breathed over and over again, a certain degree of asphyxia will be produced, and this asphyxia will enable

the patient to take deep and frequent respirations, carrying the Etherized atmosphere down to the lung-cells, and producing rapid narcosis.

In order to prevent nausea and vomiting, which often follow the use of this anæsthetic, no food should be taken for at least six hours before the inhalation; and the administration of one or two ounces of brandy just before inhalation, is strongly recommended by many. I would suggest that Dr. G. H. Hall's method of giving twenty drops of Chloroform before the inhalation, be tried; also, Dr. S. P. Burdick's plan of free inhalation of cider-vinegar, as soon as the continuance of anæsthesia is no longer required.

Unlike Chloroform, Ether can be freely given in the sitting posture without danger; consequently, it is especially adapted to the use of dentists.

Great care should be taken when using Ether at night, its fumes being very inflammable. The light should be above the patient, as the high specific gravity of the vapor of Ether causes it to fall toward the floor. Ether being far more safe than Chloroform, it should be used under all ordinary circumstances where an anæsthetic is called for.

Administered Internally.—It is best given in ice-cold water, or equal parts of brandy on finely cracked ice, or in capsules. The dose is from one fluid drachm to half a fluid ounce. One and a half ounces have been given at once without harm.

External Uses.—Ether, applied on a very thin compress, so as to favor its rapid evaporation, is of great value in *nervous headache* and *neuralgia*, and to expel the blood from an inflamed and swollen part, as well as to mitigate local pain in any part of the system. Its fumes, when thrown into the auditory canal, will arrest otalgia with great celerity.

The great use of Ether has been found in surgery where an anæsthetic is indicated. From its great safety, it has well nigh superseded Chloroform in America. Many of our best surgeons use no other anæsthetic. For years I have been in the habit of using half Ether and half Chloroform and have been satisfied with the results. In addition to its anæsthetic properties, Ether is of great value in many diseases when given internally. In all diseases requiring a diffusive stimulant, as sudden sinking spells or syncope, Ether is the most powerful and quickly acting stimulant we have.

Head.—Nervous sick-headache; much congestion; great dizziness, intense pain and heat in the head; face flushed; wild look.

Apoplexy, with much congestion and heavy breathing.

In *delirium tremens*, with furious mania; full doses will be of great value; and, in *hysterical fainting fits*, it acts with great promptness, used internally and as an anæsthetic.

Mouth.—In toothache, cotton soaked in Ether and placed in the cavity, will give instant relief; but it may return in a short time.

Digestive Organs.—Mouth dry, or filled with saliva; speech difficult; bad taste, and complete loss of appetite; nausea, vomiting, and great pain in the epigastrium.

In spasmodic nervous hiccough, no remedy acts better.

Gout in the stomach, or gastralgia, with extremely severe pains. (It should be used internally and by inhalation.)

In enteralgia and spasmodic colic, it is of great utility.

Biliary Calculi.—When the pain and spasm are exceedingly severe, from one to two drachms should be given at a dose every half-hour or hour until relieved. Dr. Durande claims that a mixture of equal parts of Ether and Turpentine is an absolute specific, having the power of dissolving the stone. This I doubt; but certain it is, that this combination has cured many cases of biliary calculi, probably by relieving the spasm and intense pain the irritations of gall-stones occasion, thus enabling the duct to expel the foreign substance, and not by the solvent action of the drug; for Ether only dissolves the fatty portion of the calculus when placed in the pure liquid.

Tapeworm.—One to two drachms, and in adults one and a half ounces, of Ether should be given in Castor oil, after an *anthelmintic* has been given (Pumpkin seeds or Male Fern), to secure the expulsion of the worm. It probably partially anæsthetizes the worm.

Ascarides.—An enema of twenty drops in an ounce of water, will often destroy ascarides in the rectum. It will not, however, prevent their return.

Urinary Organs.—*Renal Colic.*—Here no remedy will help the patient like anæsthetics. The Ether should also be given internally in large doses of from one to three drachms, in sugar. It relaxes the spasm of the excretory ducts, rendering the passage

of the calculus easy and rapid. In sounding for *stone* and in *taxis* for *hernia*, complete anæsthesia should be employed.

Diabetes.—No remedy produces glycosuria more markedly than Ether; and it may prove one of our most useful remedies for this fearful malady.

Sexual Organs, Female.—In *Dysmenorrhœa*, with violent uterine spasms and excruciating pains, no remedy can equal Ether or Chloroform. The pains are instantly relieved, and the same with *after-pains*.

In *Hysteria*, Ether will cut the paroxysm short at once. In some cases, the cure is permanent; but, in my experience, it often returns again, and the anæsthetic has to be used freely.

Puerperal Convulsions.—When the convulsive attacks partake of the congestive or apoplectic form, with coma, etc., Ether by inhalation will prove the most useful remedy that can be used, and should never be forgotten. The same may be said of *infantile convulsions* of a congestive form.

Obstetrical Practice.—Here, I prefer Chloroform, as Ether does not act quickly enough; but many physicians use the Ether. If it is used, its anæsthetic effect must be maintained between pains, or they are felt more keenly. Dr. A. Hewson prefers *analgesia* by rapid breathing instituted at the onset of each pain and suspended in the intervals.

Chest and Respiratory Organs.—*Syncope* from sudden failure of the heart's action, from mental emotions, or hysteria, is promptly arrested by Ether. *Angina pectoris* and *spasmodic asthma* are sometimes arrested at once with Ether; but generally, it soon loses its effect, and some other remedy has to be selected.

In *whooping-cough*, the paroxysms can be cut short by the inhalation of Ether. The same can be said about nervous spasmodic cough and laryngismus stridulus. The symptoms of *membranous croup* have been often mitigated by this drug.

Generalities.—In *Chorea*, Ether spray should be applied along the spine. Dr. Hammond has cured many cases by its use.

In *globus hystericus* and *hystero-epilepsy*, Ether gives prompt and satisfactory results.

Feigned diseases, in which the limbs or body appear rigidly bent or distorted, are readily discovered by complete anæsthesia. The same with *phantom tumors* of the abdomen.

Paralyzed portions of the body, when subjected to a jet of Ether spray, are found to be frozen in two or three seconds;

whereas it takes eight or ten seconds to freeze the healthy portions of the body.

Local Anæsthesia.—For small surgical operations, Dr. Richardson has introduced *Ether spray*, used with the hand ball spray apparatus. Rhigoline is more effective than Ether. When a current of atomized Ether or Rhigoline is directed against the skin, the rapid evaporation produces an intense degree of cold, in consequence of which the nerves lose their power of transmitting impressions to the sensorium. This local anæsthesia often produces severe burning after the parts recover from the freezing process; and Ether often causes severe pain to certain parts, during its application.

Spinal irritation, chorea, neuralgia, lumbago, and muscular rheumatism are often quickly cured by Ether spray.

The diminution of the cutaneous sensibility by the application of *ice* and freezing mixtures has long been practiced; and, in small surgical operations, opening abscesses, etc., I have seen the most satisfactory results from the use of this agent.

EUCALYPTUS GLOBULUS.

Australian Gum Tree.

Habitat: Austral a, etc. Tincture of the dried leaves, Class IV.

Through the cerebro-spinal nervous system, Eucalyptus has eight special centers of action:

- I. MUCOUS M. (THROAT, LUNGS, INTES., KIDNEYS.) *Mucorrhœa.*
- II. URINARY O. *Diuresis, with Enormous Increase of Urea.*
- III. DIGESTIVE O. (1) *Tonic; (2) Indigest'n; Catarr'l Diarrhœa.*
- IV. SPLEEN. *Contracted; Fatty Degeneration.*
- V. HEART. *Violent Palpitation; Blood-Pressure Lessened.*
- VI. TEMPERATURE. *Greatly Lowered; Asthenic Fever.*
- VII. SKIN. *Powerful Diuretic.*
- VIII. SPINAL CORD. *Cord and Medulla Paralyzed.*

Digestive Organs.—Dr. R. Bartholow says: "Eucalyptus has a warm, aromatic, bitter, and camphorous taste, resembling somewhat the taste of Cubebs. In the mouth, it excites the flow

of saliva, and leaves a hot, pungent, and rather disagreeable flavor. In the stomach, it causes a sensation of warmth, and doubtless promotes the flow of gastric juice. The appetite and digestive power are increased; the intestinal secretions are increased, and hence the alvine evacuations are rendered somewhat more copious and easy. In very large doses, it causes a sense of weight and uneasiness at the epigastrium, odorous eructations and indigestion, followed by diarrhœa, the stools having the characteristic odor of *Eucalyptol*."

Spleen.—The spleen becomes contracted, hard, and resistant, its surface granulated, and the whole organ diminished in size.

Mucous Membranes.—This remedy has a specific action upon these tissues, especially acting upon those of the lungs and kidneys, producing congestion and increased mucous secretions. It also affects the intestinal mucous membrane in a similar manner.

Urinary Organs.—Upon the kidneys, this remedy has a specific action. It causes irritation and congestion of the kidneys in the same way that Cubebs and Copaiba do. The urine has the odor of the Oil an hour after its ingestion, and continues to for two days. Dr. Gimbert states that the odor imparted to the urine resembles that of violets, and is very similar to that caused by turpentine. The excretion of urea is enormously increased by the use of this drug. Dr. Wooster considers it a diuretic of rare virtue, showing notable restorative effects in low states of the system, as in typhoid fever, typhoid diarrhœa, and dysentery. It relieves spasmodic strictures, vesical catarrh, and cures gonorrhœa.

Circulation.—Prof. Wood says: "In some cases the medicine acts very disagreeably, producing violent cardiac palpitations or intense headache. How far these are directly dependent upon the drug, or are sympathetic with its action upon the stomach, is uncertain. If the dose be repeated, or if a larger amount be taken at once, a period of sedation manifests itself; the pulse loses its force, and the animal temperature is abated."

Cerebro-Spinal System.—"After doses of seventy-five grains, Binz noted numbness of the limbs, with a feeling of excessive weight in them. If the use of the remedy be persisted in, a state of asthenia is induced; the temperature falls as much as a degree and a half, and the pulse even to fifty; the respiration becomes less frequent; the muscular weakness is extreme, so that raising

the arm to the mouth is painful; the sensations are blunted, but the intellect is absolutely unaffected. In an old man who took eighty drops, the power of motion almost disappeared, and he affirmed that he lost for the time being all sense of the presence of his limbs, so that he was unconscious of possessing them when he shut his eyes, although his intellect was perfectly clear throughout.

"Upon the lower mammalia, the Oil of Eucalyptus acts precisely as it does on man. According to Gimbert, the hypodermic injection of the Oil is immediately followed by a period of excitement. After about half an hour the animal begins to stumble and totter in walking, the breathing grows more and more slow and irregular, the limbs give way, the ears droop, the muscular weakness becomes profound, and death, preceded often by partial convulsions, occurs through failure of respiration. In Gimbert's experiments, the heart always continued to beat after breathing had ceased. As the motor nerves and the muscles retained their functional power after death, the failure of motility and reflex activity must have been central; and Gimbert concludes that the drug in toxic doses is therefore a *paralyzant to the spinal cord and the medulla*. Binz also came to the same conclusion."—*Dr. H. C. Wood*.

Bartholow says: "It increases the action of the heart, lowers the arterial tension, and induces a feverish state. The respiratory movements are accelerated. Wakefulness is caused by it in those in health, and sleep in the weak and anæmic." In some the venereal appetite is increased.

Temperature.—Toxic doses in animals produce a decided fall of temperature. Hermann Schlaeger says, that, after hypodermic injections, the temperature sometimes rises, probably as a result of local irritation. "In man, large doses lower the temperature in the healthy from one to two degrees. Large and continued doses produce real fever of an asthenic type."

Skin.—Upon the skin, it acts as a powerful diaphoretic, and the drug is eliminated through the skin. It has been used with fine results in exhaustive night sweats; also for herpetic eruptions, glandular enlargements, and indolent ulcers.

Remarkable Peculiarities of the Tree.—"The capability the Eucalyptus has for absorbing water is extraordinary; and to it has been attributed the freedom of Australia from malarial, miasmatic influences. Indeed, it is stated that a tree will evap-

orate ten times its weight of water in twenty-four hours; and numerous examples are given in which swamps in Europe and Algeria have been rapidly converted into dry ground. It is believed to destroy malaria, not only by draining the soil, but also by yielding balsamic exudations to the air; however this may be, there is at present very strong evidence as to its power of rendering infected districts healthy. The growth of the tree is said to be about five times that of our ordinary trees; and the shingles made of the wood are said to be fire-proof."—*Dr. H. C. Wood.*

Therapeutic Individuality.

Malarial Affections.—The chief use that has been made of Eucalyptus is as an antiperiodic; and the weight of testimony is vastly in favor of its possession of decided antiperiodic powers. I have used it in both acute and chronic cases, and found it curative in both, but that its true sphere is in the sub-acute or chronic cases that have been mal-treated with Quinine. Bartholow says: "It is certainly very serviceable in the *convalescence from intermittent and remittent fevers*; and in *chronic malarial poisoning* it has a high degree of utility. It is more useful than Quinine to reconstruct the damages in the organs of assimilation caused by malarial affection."

Wood says: "Dr. Joseph Keller has used it in four hundred and thirty-two cases, of which two hundred and ninety-three had suffered from previous attacks. Of the tertians, 75.57 per cent, of the quartans 70 per cent, and of the quotidians 67.89 per cent, yielded to the remedy. He recommends it as especially valuable in obstinate cases in which Quinine has been taken again and again."

In intermittent neuralgia, it has acted well.

Respiratory Organs.—"The most important use of this agent occurs in the treatment of *catarrhal affections of the broncho-pulmonary mucous membrane*. It is not adapted to acute affections or to recent inflammation, but to *chronic* cases accompanied by *free muco-purulent expectoration*. It is of *great utility* in *bronchorrhœa*."—*Bartholow and Gubler.*

Tuberculous hectic fevers, with profuse, exhaustive sweats.

Asthma, in debilitated, anæmic subjects, with terrible dyspnoea, the heart sympathizing strongly. It may be smoked in cigarettes; its fumes are strongly recommended by Maclean.

Rheumatism.—*Rheumatic*, jerking, stitching, tearing pains, worse at night.

Alimentary Canal.—*Atonic Dyspepsia*, chronic gastric and intestinal catarrh.

The condition of the mucous membrane which favors the production of *intestinal parasites* is removed. For ascarides it should be used by an injection.

Genito-Urinary Organs.—*Catarrhal states of the genito-urinary organs*. "Chronic desquamative nephritis, granular degeneration of the kidneys, pyelonephritis and hydronephrosis."—*Bartholow*.

"No remedy which I have used has been more effective in *chronic catarrh of the bladder*."—*Bartholow*.

In *gonorrhœa*, sub-acute and chronic form, it has acted well.

Sexual Organs, Female.—"At the *Climacteric*, in women who suffer much from flatulence, palpitation of the heart, and sudden flushings of the face, it affords great relief."—*Bartholow*.

"For *uterine catarrh* it is of great value, used locally and internally."—*Rose Cormick, M. D.*

Leucorrhœa, acrid and fetid. (The fetor is destroyed at once by the local application.)

As a Disinfectant.—"Externally, the tincture and the distilled water are used as *disinfectant* applications to *foul-smelling and ill-conditioned ulcers and wounds*." (Gimbert.) The water of *Eucalyptus* is recommended by Gubler, as a vehicle for agents used by the hypodermic method. The *toxic* influence of *Eucalyptus* on the lower forms of life—cryptogamic and infusorial organisms—is the ground of its application for these purposes. As respects solutions of alkaloids for hypodermic use, the water of *Eucalyptus* prevents the development of the *penicillium*, which grows rapidly, and at the expense of the alkaloid, in solutions prepared with simple distilled water."—*Bartholow*.

EUONYMUS ATROPURPUREUS.

Wahoo.

Habitat: America, etc. Tincture of the bark. According to Class IV.

Through the solar and hypogastric plexuses of nerves, Euonymus has three special centers of action:

- I. LIVER. *Hepatic Stimulant; Bile Greatly Increased.*
- II. DIGESTIVE ORGANS. *Hydragogue Cathartic.*
- III. KIDNEYS. *Increased Blood-Pressure; Albuminuria.*

Digestive Organs.—The action of this remedy upon the bowels, and especially the liver, very much resembles that of Mercury and Podophyllum; but Euonymine has been found to be far superior to the two former for exciting a free flow of bile. Dr. L. Sherman says: "The internal administration of the tincture produces a sick, weakening sensation all through the nervous system; a dull, heavy pain through the frontal portion of the head; an enlarged, blurred feeling in the head; a deathly sickness at the stomach, with perspiration and heat in the face in alternation with chills in the back and arms; profuse prostrating diarrhœa, accompanied by death-like nausea, excessive tormina, and cold sweats." Bartholow says it possesses cathartic properties similar to Rhubarb, and is an excellent remedy in hepatic and intestinal diseases.

Therapeutic Individuality.

"This is one of the most valuable remedies we have for what is known as a general bilious state."—*W. H. Holcombe.*

Cholera morbus, with profuse bilious stools and great prostration, with much nausea and vomiting.

Many forms of dyspepsia, with hepatic symptoms.

Dr. W. H. Holcombe gives two remarkable cures of albuminuria with this drug. He says: "Regarding dyspepsia and arrested hepatic function as morbid steps almost always preliminary to the development of Bright's disease, I had determined to put my patient steadily for a while on a liver remedy; and it

occurred to me soon that I had discovered the right thing. I gave two or three grains of the 1st cent. trituration of Euonymine, three times a day. In one week the albumen was removed from the urine, and a speedy cure followed.

"I have frequently prescribed it successfully for pains in the back, loins, hepatic and splenic regions, of obscure origin, but very probably connected with kidney troubles not revealed by the exudation of albumen."

It must become a remedy of great utility for gallstones.

It has been found useful in bilious intermittents.

I know of an Eclectic physician who depends upon the Wahoo in typhoid fever. He claims, after many years of practice, never to have lost a case, and he had an immense number of them, and became noted for his success in typhoid fever.

Two grains of the active principle of the Euonymine will act as a good cathartic. I use triturations of the active principle.

EUPATORIUM PERFOLIATUM.

Boneset.

Habitat: America, etc. Tincture of fresh plant just in bloom, Class III.

Through the cerebro-spinal system, Eupatorium has six special centers of action:

- I. SPINAL CORD. (POSTERIOR.) *Paralytic Hyperæsthesia.*
- II. VAGI. *Excessive Nausea; Bilious Vomiting.*
- III. LIVER. *Portal Congestion; Excessive Secretion of Bile.*
- IV. INTESTINES. *Excessive Hyper-Catharsis.*
- V. LUNGS. *Congestion; Catarrhal Inflammation.*
- VI. SKIN. (SUDORIPAROUS GLANDS.) *Copious Diaphoresis.*

Muscular and Fibrous Tissues.—Through the posterior spinal nerves, it produces excessive soreness and intense aching of the muscles, which seems to even penetrate the bones; and with it, there is much chilliness and many bilious symptoms.

Vagi.—Through its action upon the pneumogastrics, we have severe bilious vomiting, with tenderness in the epigastrium, and

fullness and tenderness in the hepatic region, from portal congestion. The hepatic symptoms are very prominent. We have congestion, jaundice, and purging of bile, and a general "bilious state."

Lungs.—Through the vagi, we have dyspnœa and congestion of the mucous membranes, with prominent catarrhal symptoms.

Skin.—Large doses of the infusion produce *great diaphoresis*, showing that it acts prominently upon the sweat glands. With its diaphoretic action, there are great nausea and vomiting.

Therapeutic Individuality.

Bilious and Intermittent Fever.—Its great field of action is in bilious intermittents, with the following characteristics:

"Intolerable aching in the back and legs, as if the bones were broken."—*G.* [Myalgia.]

Severe aching distress, and soreness of all the limbs as if pounded.

"Calves of the legs feel as though they had been beaten; soreness and swelling of the feet."—*D.*

"Painful soreness of both wrists, as if broken or dislocated."—*G.*

"These pains make the patient very restless; chill comes on in the morning; thirst several hours before the chill, which continue during the chill and heat."—*Hale.*

"Great deal of shivering during the chill."—*Dr. Gray.*

This great chilliness shows how prominently this remedy affects the posterior columns of the spinal cord; so do the intense aching and feeling as if pounded, point to the posterior columns.

"Heavy chill early in the morning of one day, and light chill about noon the next day."—*Dr. Gray.*

"Very restless; can't keep still, although there is a great desire to do so; not relieved by motion."—*Dr. C. B. Kuler.*

"Little or no sweat at any time during the disease."—*Drs. Gray and Hale.*

Dr. Dunham says: "I regard the severe bone-pains and the absence of much sweat as especially characteristic."

"The peculiar headache, the soreness of the eyes, and their yellowness, the yellowish-red face, the vomiting of bile, with nausea and prostration, the soreness in the region of the liver, the constipation, the internal soreness, and the external soreness

all over the body, from head to foot—furnish indications for bilious fever too strong to be questioned.”—*D.*

“Urine scanty, dark mahogany color.”—*Hale.*

Digestive Organs.—“Vomiting at the conclusion of the chill; vomiting of whatever is taken into the stomach, and of bile.”

“Vomiting of a green liquid, several quarts at a time, with frequent green, watery stools; cramps and terrible thirst.”—*Dr. Gray.* [Tongue coated thickly yellow.]

“Vomiting of bile, with great tenderness in the epigastrium, and trembling.”—*Dr. Gray.*

Nausea, frequent efforts to vomit; extreme tenderness in the epigastrium, with fullness and tenderness in the hepatic region from portal congestion. The most prominent key for the use of this remedy is the distressing vomiting after a chill with the great soreness of the muscles.

Respiratory Organs.—“Dyspnœa very great, obliging the patient to lie with his head and shoulders very high.”—*Dr. Neidhard.*

“Influenza; great pain in the back and limbs; lassitude; skin bathed in perspiration; is pale and morbidly sensitive, and the excretions of a passive kind.”—*Raue.*

Nocturnal loose cough.

“Intense headache; throbbing and great sense of internal soreness in the forehead and occiput, distress and painful soreness in the top and back of the head.”—*D.*

Bilious sick-headache, pain in the occiput after lying, with sensation of great weight in that part, requiring the hands to lift it up, with great soreness of the eyes.

Coryza, the nose and eyes both streaming with water at intervals.

Aggravation.—Morning, noon, and open air.

Amelioration.—In-doors and at night.

EUPATORIUM PURPUREUM.

Queen of the Meadow.

Habitat: North America, etc. Tinctur: of the fresh root, Class III.

Through the cerebro-spinal system, Eupatorium has three special centers of action:

- I. URINARY ORGANS. *Diuresis; Catarrhal Cystitis.*
- II. SPINAL CORD. (ANTERIOR.) *Hyperæsthesia.*
- III. MUSCULAR SYSTEM. *Rheumatoid Inflammation.*

Urinary Organs.—Through the renal plexus, this remedy has a specific and special action upon the kidneys, acting as a powerful diuretic, producing great increase of the urinary secretion. Large doses produce vesical irritation, with frequent desire to urinate, which is very urgent and painful. The urine becomes loaded with mucus, which is high colored and scanty. It has been highly extolled in gravel and renal dropsy and irritable bladder.

Muscular System.—Through the spinal nervous system, it produces a state of the muscular system similar to rheumatism. It probably affects the anterior portion of the spinal cord the most.

Therapeutic Individuality.

Dr. Hughes says: "The drug has become my favorite remedy for vesical irritability in women."

"Much smarting and burning in the urethra during urination."

—*Dr. Dresser.*

"Constant desire to urinate, passes but a few drops at a time, and is obliged to make the effort often."—*Dr. Dresser.*

"Suppression of urine, with restlessness and moaning."—*Dr. Dresser.*

"Burning distress in the bladder, with the urine mixed with mucus; or dull, aching pains in the bladder, with profuse urination."—*Dr. Dresser.*

Incontinence of urine, with irritable bladder.

Calcareous concretions in the kidneys and bladder.

"Dull, aching pains in region of the kidneys."—*Dr. Dresser*.

"Excessive irritation of the bladder, with large deposits of lithates."—*Hale*.

"Catarrhus vesicæ, attended with ulceration."—*Hale*.

Rheumatic pains in the lumbar region.

"Renal dropsy; body and extremities enormously swollen; scanty secretion of urine, and distressing dyspnoea."—*Dr. Dresser*.

Urine albuminous. (Useful in first stage of albuminuria.)

"The hypogastric region swollen and hot in suppression of urine."—*Dr. Dresser*.

Dr. Hale says: "The dropsy in which it will prove curative will be found, generally, to be a secondary condition, preceded by undue excitation of the kidneys, which after a time gives way to the opposite condition of torpor, or passive congestion, resembling closely *Apocynum cannabinum*."

Fever.—Very valuable in intermittent fever.

"Paroxysms at various times of the day; chills beginning at the small of the back, spreading up and down the trunk and extremities; violent shaking, with comparatively little coldness."—*Hale*. [Showing that the motor tract of the spine is involved.]

"No thirst during chill, but much frontal headache."—*Hale*.

Fever for several hours; nausea and vomiting, with thirst.

"Not much sweat; on moving during the sweat, a chilliness would pass through the body."—*Dr. Dresser*.

"Nausea as the chill is leaving, and desire to eat immediately after the fever."—*Dr. S. Swan*.

"A heavily furred tongue, brown along the center, and a bitter, pappy taste with the chill."—*Dr. Dresser*.

"Head feels light; can not get rid of the sensation as if the head was falling to the left side."—*Dr. Dresser*.

"Weak, tired feeling; seems insupportable."—*Dr. Dresser*.

"Numbness of the legs."—*Dr. Dresser*. [Rheumatism.]

"Severe bone-pains."—*Dr. Van Tagen*. [In rheumatism.]

"All symptoms are worse on the left side of the body."—*Dr. Dresser*.

Sexual Organs, Female.—This remedy seems to have quite an action upon the female generative organs, and has acted well in ovarian and uterine atony, amenorrhœa, etc.

Heavy pressure above left ovary, with jerking pains; numbness, worse in ovarian region.

Abundant leucorrhœa, with urinary complication.

Tendency to miscarriage, with urinary troubles.

General tendency to rheumatism; pains pass from below upward, with loose, bilious stools.

Great restlessness; tossing, moaning, tired and faint, in rheumatism and bilious fevers.

Aggravation.—Mornings.

Amelioration.—At night.

EUPHRASIA.

Eye-bright.

Habitat: Europe, Asia, America, etc. Tincture of fresh blooming plant, Class II.

Antidotes.—Camph., Puls., Bell., Merc.

Through the cerebro-spinal nervous system, Euphrasia has one special center of action:

I. MUCOUS M. (EYES, NOSE, LUNGS.) *Catarr'l Inflam.; Mucorrhœa.*

Mucous Membranes.—Upon the mucous membrane of the eye, nose, and upper portion of the respiratory organs, Euphrasia produces catarrhal inflammation, with copious mucous secretions; that of the eye being very excoriating, and that from the nose and lungs of a bland nature. This is worth noting.

Therapeutic Individuality.

Acute catarrhal ophthalmia, with copious acrid secretions.

Inflammation of the eye characterized by congestion of the conjunctiva, and great photophobia; excessive acrid lachrymation, with constant tendency to blink.

"The secretion of tears is not only increased in quantity; it is altered in character; the tears are very acrid, excoriating the lids, which swell and ulcerate on their margins, causing inflammation and even suppuration of that part of the cheek which is kept wet by them."—D.

"The clinical record in ulceration of the cornea is long and brilliant."—*D.*

"The eyes appear to be affected in almost every part, eminently, however, the conjunctiva, the cornea, the lachrymal gland and sac, and the special sense."—*D.*

Paralysis of the muscles of the eyes from cold.

"The nasal mucous membrane is affected as much as the conjunctiva. It is swollen, and secretes an abundance of water, and, later, of a muco-purulent substance, with sneezing and dyspnoea."—*D.*

Chest.—"The mucous membrane of the throat and bronchi is similarly affected. There is abundant mucous secretion, a loose cough, and a loud bronchial rale."—*D.*

Great chilliness, both externally and internally, predominates, with but little heat; tending to show that the posterior spinal cord is its center of action.

Aggravation.—In bed, in warm air, in the light, and evenings.

Amelioration.—Outdoors, and in the dark.

FERRUM.

Iron.

An element. Europe, America, etc. Trituration.

Antidotes.—Ars, Hep., Merc., Puls., Arn., Verat. alb., Cinch., Copper.

Through the great vegetative nervous system, Ferrum has seven special centers of action:

- I. BLOOD. *Albumen Decreased; Water Inc.; Anæmia; Hydræ.*
- II. SPLEEN. *Atrophy and Loss of Function.*
- III. TEMPERATURE. *Augmented in Health and in Disease.*
- IV. DIGESTIVE ORGANS. *Tonic.*
- V. TEETH. *Destruction of the Enamel.*
- VI. KIDNEYS. *Fatty Degeneration; Albuminuria.*
- VII. ELIMINATION. *Through the Intestinal Mucous Membrane.*

Blood.—Iron has a specific action upon the blood, producing a decrease of the albumen and an increase of the water in the

serum sanguinis, and at the same time diminishing the red blood-corpuscles. Its action upon the blood-making organs, especially the *spleen*, is very prominent, producing atrophy, rendering it unable to perform its functions in the process of sanguification, causing true and well-marked *anæmia* or *hydræmia*, with all their attendant symptoms.

Bartholow says: "Iron is not a substance foreign to the organism. Chemical analysis has demonstrated its constant presence in the blood, in the gastric juice, chyle, lymph, bile, in the pigment of the eye, and traces in the milk and urine. According to Gorup-Basanez (analysis of C. Schmidt), the blood of man contains one part of Iron to 230 of red globules, and that of beef one part of Iron to 194 of red globules. Iron exists in combination in hæmatine; according to some, in the state of the Oxide, according to others as metallic Iron. That it performs a very important office, is shown in the rapid construction of red blood-globules when it is administered in anæmia. Without it, hæmatine is not formed, and the red globules diminish in number. By its medicinal use, we furnish to the blood a material which it needs. In health, a mixed diet contains sufficient Iron for all the purposes of the economy. The blood being improved in quality by the administration of Iron, the tissues are better nourished, and all the functions are performed with more vigor."

Dr. R. Hughes says: "First of all, we notice that Iron, like lime, is a normal constituent of the body, and is being continually supplied with the food. It is in the red corpuscles of the blood that the metal finds its *habitat* and performs its functions. Now, it is in the deficiency of these very corpuscles wherein the 'poverty of blood' we call anæmia consists. It is impossible to deny the significance of such facts, or to resist the conclusion that the relation of Iron to the blood is a fact of the same order as that of lime to the bones. Is Iron, then, a direct food? Is it merely by supplying a want of its normal proportion in the body that it cures anæmia? This position can not, I think, be sustained. The malady does not ordinarily arise from any failure in the quantity of Iron supplied to the food. If the element is deficient in the blood, the fault lies in the assimilative processes. But Reveil has ascertained that in anæmia there is no change whatever in the amount of Iron present in the blood. However few the corpuscles, they contain within them the full proportion of the metal normal to health; and, though under the influence of Iron itself they increase to double and triple the number, they yield no more Iron.

"Not, then, from want of their metallic constituent, but from deficiency of the red corpuscles themselves, is the blood poor in the condition we call anæmia. And why are the corpuscles few? Their development is the ultimate result of the elaboration of the vital fluid; their defect must be owing to a fault somewhere existing in the blood-making organs. Can we remedy such fault merely by giving an increased quantity of the pabulum, from which they are built up? It can hardly be so. If the parts concerned in sanguification have proved unable to perform their task hitherto, they will not work the better because more material is supplied for their operations. What is wanted is a *stimulus*, elective in its affinity for the parts concerned, and specific in its correspondence with the morbid condition induced. That we have such a stimulus in Iron, appears from two classes of facts,—first, its effects on the healthy; second, its operation in small doses in disease."

Most physicians believe, that Iron acts on the red corpuscles so as to turn the oxygen contained in them into ozone, in this way promoting oxidation, ozone being the active form of oxygen in the system; but Stille, in his "Therapeutics," says: "It is very probable that Iron, on entering the blood-vessels, combines immediately with the disks which have not yet acquired, or which have lost more or less of, their Ferruginous element. It enters the blood as a Chloride, is decomposed, combines with the disks as a Carbonate of the Protoxide of Iron, and in the lungs gives up carbonic acid and absorbs oxygen, and is thereby converted into a Peroxide. The white corpuscles are destitute of Iron, but, when once saturated with it, neither they nor the red corpuscles can receive any more. It is this theory which explains the facts pointed out by Brandis, Giacomini, Bruck, and many others, that Iron ceases to influence the economy when it has once restored it to a healthy condition."

Temperature.—"The influence of Iron upon calorification is no longer a matter of conjecture; it has been fully demonstrated by the numerous and accurate experiments of Pokrowski, who proved, that not only does it raise the temperature of the body when it is lowered by disease, but that, when under a given dose the temperature ceases to rise, it will attain a still higher degree if the dose is increased. The pulse becomes fuller, and the weight of the body, and the proportion of urea excreted, are simultaneously augmented. All the preparations of Iron used for internal use have the same effect. Bodkin has also proved that

Iron, even in healthy persons, raises the temperature above the normal standard. Thus it would appear that the activity of nutrition, and probably also of calorification, is dependent upon the Iron in the blood, and that, when the red blood-disks which contain it are most abundant, all of the functions of the economy attain their highest degree of activity and vigor, such as is displayed in persons of a sanguine temperament."—*Stille*.

Digestive Organs.—The acrid and astringent preparations of Iron act on the teeth with considerable energy, as shown by Dr. Smith, a surgeon-dentist of Edinburgh. He immersed teeth in various solutions of Ferruginous compounds, and found that they were acted upon very powerfully by the Muriated tincture, the Sulphate, and the Wine. In the first mentioned the fangs became quite soft, flexible, and the enamel was wasted away; in the second, the enamel and dentine were superficially softened; and in the third the action was scarcely appreciable.

When the teeth become discolored, which is an effect of the union of the metal with the tannin contained in the food, it is readily removed by a stiff brush, with charcoal dentifrice, especially if the latter contain tannic acid. The blue color produced by the Iodide of Iron, can be removed by a solution of Carbonate of Soda.

"The physiological action of Iron is not limited merely to the construction of red blood. When there is no intolerance to its presence in the stomach, it promotes the appetite and invigorates the digestion. By increasing the disposition for food and the disposition to dispose of it, Iron acts as a stomachic tonic. Hence, when given in a healthy state, or when administered for too long a period in disease; the gastric glands become exhausted by over-stimulation; and then, it is said, the Iron disagrees. Being a restorative, its use is contra-indicated in a condition of plethora, especially when there exists a tendency to hemorrhage, or when there is reason to suspect an atheromatous state of the cerebral vessels.

"In large doses, the soluble preparations of Iron give rise to nausea and vomiting. Some of them possess more or less toxic activity; the per-salts are more active than the proto-salts. The Iodide and Chloride, the Nitrate and Sulphate, are the most active, death having ensued from the tincture of the Chloride, in one case (Christison), and alarming symptoms having occurred in others (Taylor).

"Certain preparations of the salts of Iron, as the Sulphate, the Nitrate, the Chlorides, possess a high degree of astringency. Hence they produce constipation when taken internally. Brought into contact with blood, they coagulate it, forming a tough, brownish magma, and, as the albuminous elements of the tissues are solidified, they are powerful hæmostatics."—*Bartholow*.

Stille says: "Among the preparations of Iron, there are three which may occasion poisonous effects. They are the Iodide, the Chlorides, and the Sulphates. In their irritant operation, however, it is not their metallic element which is active; it is the Iodine, the Chlorine, or the Sulphuric acid which is the chief cause of the toxical phenomena. Thus, Iodide of Iron, given to animals in excessive doses, occasions vomiting, purging, gastric inflammation, and death; and the remaining compounds have produced fatal effects. Experiments upon animals by Dr. James Blake show that the quantity of the different salts of Iron required, when introduced into the blood, to produce death, is extremely different; for, while sixty to seventy grains of the proto-salt can be circulated in the blood without producing any fatal symptoms, four or five grains of the per-salt will destroy life."

Elimination.—"An interesting and important question is, How much Iron is absorbed into the blood? Probably but little of the insoluble forms, as the quantity of acid in the stomach is not adequate to dissolve them; and, as regards the soluble preparations, it is hard to say how much gets into the blood. The increase of the Iron in the urine being very slight after administering a soluble Iron salt, it has been concluded that very little passes into the blood; and the fact that almost all the Iron taken by the mouth may be reobtained from the fæces, seems to strengthen the view; but an extended knowledge concerning the elimination of metals from the body shows this conclusion to be fallacious. Probably most metals, but certainly Iron, are eliminated from the system through the intestines, and make their exit with the fæces; for, when Iron salts are injected into the blood, almost all the metal is ultimately recoverable from the fæces. That much more is absorbed than is appropriated by the blood-corpuscles, is shown by the coloration Iron produces in all the albuminous secretions of the body, the fluids bathing the various cavities becoming colored reddish-brown."—*Ringer*.

Preparations of Iron.—Among the fifty or more preparations of Iron, my favorite ones are the following, commencing with the most valuable, and ending with the least:

Ferrum Reductum.—Iron by hydrogen. This is of an iron-gray color, and is the most useful Ferruginous preparation for general internal use. I use the 1st and 2d dec.

Ferri Pyrophosphas.—The Pyrophosphate of Iron. In apple-green scales, wholly soluble in water. Ranks about equal to the first mentioned; 1st and 2d dec.

Ferri Chloridum.—Chloride of Iron. In orange-yellow, crystalline pieces, very deliquescent, and wholly soluble in water, alcohol, and Ether; 1st to 6th attenuation.

Ferri et Strychnie Citras.—Citrate of Iron and Strychnia, one grain of Strychnia to one hundred grains of the compound. This is a very useful preparation of Iron in the three first triturations.

Ferrum Dialysatum.—Dialysed Iron. This preparation is made by the process of diffusion, and is Iron in the colloid state. It is odorless, without the styptic taste of the Ferruginous preparations, does not blacken the teeth, is free from irritant action, and does not constipate. It will no doubt prove to be the best form in which to administer Iron. For four years I have given this preparation, from five to ten drops at a dose, from two to three times a day, of the crude drug, and am delighted with its action.

Liquor Ferri Subsulphatis.—Solution of Subsulphate of Iron (Monsel's solution). For local use, this is the most powerful styptic we have.

Therapeutic Individuality.

Anæmia, with pale face and lips, and great debility.

"The treatment of anæmia by Iron is one of the few satisfactory and certain things in modern medicine. From whatever cause this condition may arise,—whether it be the chlorosis of defective menstruation, or the simple poverty of blood induced by hemorrhages, deficiency of air, light, and suitable food, or by exhausting diseases,—Iron is the one great remedy."—*R. Hughes, M. D.*

"Anæmia under the mask of plethora and congestion, accompanied by a whitish color of the mucous membranes."—*Dr. H. Goullon.*

"Weakly persons, with fiery red face."—*G.*

"The least emotion or exertion causes a red, flushed face."—*G.*

"Ashy pale or greenish face, with pains or other symptoms; the face becomes bright red."—*Raue*.

"Face becomes suddenly fiery-red, with vertigo; ringing in the ears; great palpitation of the heart, and dyspnœa."—*G*.

"Can not keep the head quiet; at intervals the face looks earthy and pale."—*G*.

The rush of blood to the head, with swollen veins, and flushes of heat to the face, is a marked symptom of Iron.

The muscles are feeble, and easily exhausted from slight exertion, with bellows sound of the heart, and anæmic murmur of the arteries and veins.

"Relaxation and weakness of the entire musculature, and emaciation; weakness of digestion; coldness of the extremities."—*Goullon*.

"Great paleness of the mucous membranes, especially that of the cavity of the mouth."—*Raue*.

"Always better from walking slowly about, notwithstanding weakness obliges the patient to lie down."—*G*.

Digestive Organs.—"Everything vomited tastes sour and acid; vomiting of food, with a fiery-red face, and renewed vomiting after eating."—*G*. [Only after eating.]

"Vomiting of the ingesta after every cough."—*G*.

"Vomiting at midnight."—*G*.

Stools.—*Lienteria*; stools of undigested food, without pain. (This is one of the best indications for Iron we have.)

Chronic constipation; ineffectual urging; anæmia; easily flushed head and face, with cold hands and feet.

"Chronic watery diarrhœa in children, usually soon after eating and drinking, *without pain and effort*, mostly containing undigested substances."—*Dr. Goullon*.

"Frequent diarrhœic stools, corroding the anus, the face being fiery-red."—*G*.

"Obstinate diarrhœa, composed of slime and undigested food; stools painless, excoriating and exhausting."—*G*.

"Diarrhœa worse mornings; bad sleep before midnight."—*J. C. Morgan, M. D.*

"The bowels feel sore on touching them, as if they had been bruised, or weakened by cathartics."—*Raue*.

"Stools, watery; slimy mucous; undigested; involuntary; painless."—*Dr. J. B. Bell*.

Urinary Organs.—Nocturnal enuresis; urine dark red, with sometimes mucous sediment,—depending on irritability of the trigone and cervix vesicæ.

Albuminuria, with chronic fatty degeneration, much anæmia, and excessive prostration, with anasarca. (*Ferr. et Strych. Cit.*)

For chronic gleet, with anæmia, use it internally and as an injection.

Iron is a decided irritant to the urethra and neck of the bladder, and has often cured chronic vesical catarrh and gleet.

Sexual Organs, Female.—Anæmia of the ovaries, with amenorrhœa and general anæmia.

"Previous to the menses, she has stinging headache, ringing in the ears, and discharge of long pieces of mucus from the uterus."—*G.*

"Menorrhagia in weakly persons; menses too frequent, too profuse, and last too long, with fiery-red face."—*G.*

During the menses, must keep perfectly still, the least movement greatly aggravates the flow; uterine hemorrhages.

"Menses intermit two or three days, and then return, the blood being very pale."—*G.*

"Much itching of the vulva; in delicate, weakly females, with fiery-red face."—*G.*

"Leucorrhœa like watery milk, smarting and corroding the parts when first appearing."—*G.*

Chest.—Congestion of the blood to the lungs, with hæmoptysis, attended with palpitation of heart, obliging patient to sit up.

Asthma, with oppression of the chest, anxiety at the pit of the stomach, preventing respiration.

"Pulmonary tuberculosis; especially in young, florid subjects, with a remarkable erethism of the vascular system, and inclination to congestion toward the chest."—*Dr. Goullon.*

"Hæmoptysis, better when walking slowly."—*Jahr.*

"Spitting blood, with flying pains in the chest."—*G.*

"General hemorrhagic tendency."—*Lippe.*

Flying pains in the chest; blood-spitting; easily flushed, with epistaxis, dyspnœa, and palpitation.

Fever.—Great chilliness and want of animal heat; the coldness in the bed often lasts all night.

Great congestion of blood to the head and face, with heat, while the rest of the body is cold.

Intermittents after abuse of Quinine, congestions to the head, veins distended; vomiting of the ingesta; enlarged spleen, anæmia masked by pseudo-plethora.

Patient sweats easily, especially at night, during sleep, or on being covered; clammy, debilitating.

"Edematous swelling of the body; cool skin; constant chilliness, and evening fever, simulating hectic fever."—*Hempel*.

Much coldness in the evening, and at night.

"Rheumatism of the deltoid muscle, of a tearing, laming nature; worse in bed."—*Dr. John Ellis*.

"Remitting pains, worse at night, driving him out of bed; motion diminishes the pain."—*Jahr*.

"Dropsy after loss of fluids, abuse of Cinchona, intermittent fever; anasarca, with great debility.

Anæmic people, with indurated glands; constitutional syphilis. (Iodide of Iron.)

Aggravation.—In the morning and while at rest, especially when sitting still, and from noise.

Amelioration.—From slow exercise, and during the day.

FILIX MAS.

Male Fern.

Habitat: Europe, America, etc. Ethereal Tincture of the fresh root, in July, Class III.

I. INTESTINAL CANAL. *Parasiticide.*

Intestinal Tract.—This is an especial poison to the tapeworm, given in large doses of an infusion of the root. Wood says, it should be given in doses of two fluid ounces, or one drachm of the Ethereal extract every three hours for one day, a milk diet being observed, followed by a brisk cathartic in the evening.

GELSEMIUM SEMPERVIRENS.

Yellow Jessamine.

Habitat: America, Mexico, etc. Tincture of the fresh root, Class III.

Antidotes.—Ether, Coff., Caps., Electricity, Cinch., Nux vom.

Through the cerebro-spinal system, Gelsemium has eight special centers of action:

- I. CEREbro-SP. S. *Centric Motor and Sen. Paralysis; Congest.*
- II. LUNGS. *Paralysis of the Respiratory Center; Asphyxia.*
- III. EYES. *Diplopia; Pupil Contr'ted; Mus. Paral'd; Ptoxis.*
- IV. HEART. *Paralysis; Blood-Pressure Lessened.*
- V. TEMPERATURE. *Lowered in Disease.*
- VI. SEXUAL O., MALE. *Mus. Paralysis; Emissions; Impotence.*
- VII. SEXUAL O., FEMALE. *Motor Spasms; Paralysis; Neuralgia.*
- VIII. URINARY ORGANS. *Diuresis; Sphincter Paralysis; Enuresis.*

Cerebro-Spinal System.—The grand center of action for this remedy is upon the *motor* portion of the *spinal cord*, *paralyzing motility first*, and then *sensibility*. "The retention of consciousness until very late in the poisoning, both in man and the lower animals, shows that the drug has very little power over the higher cerebrum, although the drowsiness and the final loss of consciousness prove that it is not entirely devoid of such influence. The two most prominent symptoms caused by the drug are the convulsions and the paralysis. The first question that is to be determined is, whether the convulsion is cerebral, spinal or peripheral. That it is not cerebral, is proven by its occurrence in the pithed frog, and below the point of section in mammals with divided spinal cord. That it is not peripheral, is proven by its taking place in the posterior extremities when the lower aorta is tied before the poisoning. The cause of the convulsions at present remains inexplicable. Ringer and Murrell conceive that there are present in Gelsemium two active and antagonistic substances,—one a tetanizant, the other a paralyzant.

"The paralysis in poisoning by Gelsemia is evidently spinal in its origin, as its development is not affected by tying an artery before poisoning so as to protect a limb, and as the afferent and motor nerves and muscles preserve their functional activity until death (Ott, Bartholow, Ringer and Murrell). It is a matter of some importance, in explaining the spinal action of the drug, to determine its influence upon the different portions of the cord."—*Dr. H. C. Wood.*

Bartholow says: "I have demonstrated that Gelsemium is a paralyzer of motility and sensibility; that sensibility is first affected in cold-blooded animals (frogs), and afterward motility; and that in warm-blooded animals the motility is affected before sensibility. As respects the seat of action, I have ascertained that the end organs of the motor nerves, and the nerve-trunks, do not lose their irritability, and that the muscular contractility is unimpaired. 'Its paralyzing effect is due to its action on the motor center, and not to an action on the peripheral nerve fibers. It acts also on the sensory portion of the cord, producing at last complete anæsthesia; but this effect in warm-blooded animals, and in man, is toxic only, and follows the paralysis of the motor functions.' Applying the precise observations which are made upon animals to the explanation of the lethal effects which have occurred in man, we are conducted to the following conclusions: The disorders of voluntary movements, and the more or less complete paralysis of the motor and of the sensory functions, are due to the effects of Gelsemium on the motor and sensory portions of the cord, the functions of the sensory columns resisting longer the action of the poison."

Ringer says: "In the lower animals, Gelsemium acts first on the respiratory center, then on the spinal cord. In man, however, the muscles of the upper eyelids, or, more probably, their motor nerves, are considerably affected before either the cord or respiratory center. We are justified in concluding that in man the drug acts upon the spinal cord before it involves the respiratory center; for, in several instances, it is recorded that the patient has recovered from a condition of complete paralysis. In my experiments on cats, rabbits, and dogs, I found that the animal died from asphyxia before there was any great impairment of voluntary power. I draw special attention to the fact that the paralysis of the cord always precedes the tetanus. Gelsemia has the power first of weakening and then of tetanizing the cord, thus corresponding to *Jaborandi*, *Buxus sempervirens*, and other drugs."

Lungs.—"Gelsemium is a powerful respiratory poison ; indeed, this drug generally, if not always, destroys warm-blooded animals by asphyxia before it produces complete paralysis. It produces no primary quickening of respiration, and does not paralyze the phrenic nor the intercostal nerves ; and it acts after the division of both vagi. It asphyxiates, as Dr. B. Sanderson has shown, by paralyzing the automatic respiratory center."—*Ringer*.

"Gelsemium usually kills by a paralysis of respiration immediately after the ingestion ; the extent of the respiration, but not its rate, is increased ; very shortly, however, both rate and depth enter a condition of progressive palsy ending in death."—*Wood*.

Brain.—An early and prominent symptom of the brain is vertigo. "Some felt it over the whole head ; but by far the larger number said it was limited to the brows ; standing or walking made it much worse. When well marked, the patients staggered, and were afraid even to stand, much less walk. So giddy was one patient that he nearly fell off the form. Some described their heads as going round and round ; they felt and seemed drunk, though without any incoherence or mental excitement."—*Ringer*.

Pain in the Head and Eyes.—"It was generally limited to the forehead, and most marked just over the eyes. Some called it a dull sensation over the eyes ; others a heavy pain ; others a giddy pain ; and one patient experienced pain over the occiput, with a sensation as if the crown of the head was being lifted off in two pieces. This headache was sometimes absent, sometimes followed instead of preceding the other symptoms. Dull, aching pains in the eyeballs, now and then shooting in character, occasionally worse in one ball, sometimes followed and sometimes preceded the headache. The headache and pain in the eyeballs were often severe, and were intensified on moving the eyes. When ptosis was well marked, the effort to open the eyes wide caused considerable pain ; relieved by closing the eyes."—*Ringer*.

Eye.—The influence this drug has upon the eye is most marked and decided. "Dimness of sight and giddiness appear to be the most constant symptoms, and may exist without headache, pain in the eyeballs, or double vision. At first the sight, without being misty, is not so clear as usual ; then a slight mist comes before the eyes, one patient comparing it to a 'lot of smoke rising before the eyes,' and another to a 'thick veil.' At last the sight becomes so affected that it fails almost completely, failing first with distant objects ; then, with further impairment of vision,

nearer and nearer objects look hazy. In poisoned dogs, after the production of slight muscular weakness, the sight became almost lost, for the animal ran straight against objects without trying to avoid them, evidently not seeing them.

"*Diplopia*.—The drug seems to produce two kinds of diplopia, one much more persistent than the other. As to the transient kind, we find it on many occasions a very passing phenomenon, lasting only a few seconds, then disappearing; then, after a few minutes, reappearing. In this transient form, images in the median vertical line appear double, distant objects at first undergoing the duplication. Sometimes the patient was conscious of the onset of the diplopia. Thus, one woman said: 'I know it is now coming on, I feel such a heavy weight under my upper eyelid.' The double vision then came on, and with the heaviness passed away in a few seconds. One image was higher than the other, the images in this respect varying much. Mr. T. Fox rapidly recorded from the patient's lips the phenomena occurring, as fast as they could be written: 'One gas jet appears about six inches above the other, and there are six inches between them horizontally; the upper one is to the left; now the right is uppermost; now the left slightly again; going over to the right now again; exactly over one another now, and quite close together; now again separated, left the highest; now over one another.' With other patients, the two images seem on a level. The transient usually precedes the more constant form, recurring from time to time, while the constant form persisted.

"The phenomena of the constant form of diplopia follow a definite order, and take place in the upper half only of the field of vision. They occur first with objects held at the extreme right or left of the visual field; and, as the patient passes more under the influence of the drug, then with objects held nearer and nearer the middle line; and, at last, usually for a short time only, objects in the median vertical plane seem double. As the effect of the drug wears off, the double vision disappears in the inverse order. The outer lateral image is the higher, and the further the object is carried to the right or left the greater is the horizontal and vertical distance between the images. When colored glass is placed before either eye, the outer and higher image is seen by the covered eye. When the object is carried high above the head, the two images gradually coalesce, and the object looks very much thinner—'like a thread.' With well-developed diplopia, there is impaired movement of the eyeball, chiefly affecting, as far as could be ascertained, the external and internal rectus, especially the

external; for the outward and inward movement of the eyeball is less free than before the action of the medicine. The ball appears to be moved by a greater effort, so that, when carried as far as the weakened muscles are capable, it oscillates,—as though the patient with a great effort moved it as far as he could, and then the tired muscles gave way a little, but, being roused to an effort, they carried the eye back again; the frequent repetition of this effort giving rise to an oscillation.

“The external rectus is generally first affected, and, not infrequently, one external rectus sooner than, and in excess of, the other. Even when the diplopia is strongly marked, the loss of power over the muscles is not very great, and there is no obvious squinting. Then, as the patient becomes still more affected, ptosis supervenes, and a great part of the whole of the upper half of the field of vision is cut off. The loss of power in the eye muscles is then more marked, but without the occurrence of obvious squinting. At this time the symptoms no longer follow the order previously described, but assume various forms, often changing rapidly. Thus, while on one side the outer image is the higher, if the object is carried to the other side of the field, the inner image becomes the higher; or, perhaps, for the first few seconds the outer and then the inner is the higher.

“Strange to say, the effect of an internal dose of Gelsemium is opposite to that occasioned by its application to the eye itself. When given by the mouth in doses sufficient to produce symptoms, the drug, in every instance but one, caused contraction of the pupil; indeed, in the case in which the drug produced weakness of the legs, with a strong double internal squint, the pupils were contracted to a pin's point. The contraction of the pupil does not cease on the disappearance of diplopia or dimness; indeed, when the dimness passes away, the contraction of the pupil may increase. Dr. O. Berger finds, and my observations confirm his statements, that dilatation of the pupils in poisoned animals occurs only when asphyxia from paralysis of respiration has set in, and that artificial respiration at once causes the pupils to contract.

“On the other hand, the topical application to the eye dilates the pupil. In the first instance, I employed a tincture (1 in 10) of the American liquid extract. These preparations dilate the pupil slightly; but they excite great irritation. Subsequently, I employ the Alkaloid prepared by Mr. Gerrard,—one grain in twenty minims of water,—a solution which causes scarcely any smarting. Mr. T. Fox and Mr. Sydney Pierce made for me nineteen obser-

vations. A few drops of the solution were put into the eye, and in each case of this trial the pupil became widely dilated, the dilatation usually beginning in about thirty minutes. Not only does the pupil dilate, but the muscles of accommodation become paralyzed and the sight affected. The vision again becomes nearly natural in twenty-four hours; but the pupil remains dilated much longer,—sometimes, indeed, for a week, or even a fortnight.”—*Ringer*.

Dilatation of the Pupil.—“That the local application of Gelsemium to the eye produces violent mydriasis, with paralysis of accommodation, indicates very strongly that the dilatation is produced, in poisoning by the drug, through an influence exerted upon the peripheral nerve ending in the eye. The palsy of the external rectus and the ptosis indicate that such action is paralytic; so that it is a probable conclusion that peripheral oculomotor paralysis is the cause of the dilatation of the pupil.”—*Wood*.

Ringer says: “We are forced to accept the feasible assumption, that, topically applied, Gelsemium has a stronger affinity for the termination of the branches of the third supplying the iris, than for the branches distributed to the orbital muscles.”

Heart and Circulation.—Dr. H. C. Wood says: “The action of moderate doses of Gelsemium upon the circulation is not very marked. That in toxic amounts it depresses both the pulse rate and pressure, is abundantly shown by the symptoms of poisoning in man, and by Dr. Ott’s experiments upon animals. As the pulse rate and pressure were reduced in these experiments after previous section of all the cardiac nerves and of the spinal cord, it is evident that the poison exerts a direct influence upon the heart. How far the vaso-motor centers are influenced by the drug, has not been accurately determined.”

Dr. Ringer made thirty-three series of observations, producing the full toxic effects of the drug upon patients. In twenty-two out of the thirty-three observations, the pulse remained unaffected. With the patient fully under the influence of the drug, the pulse became a little smaller and softer. These observations show that the Gelsemium produces little if any effect upon the circulation,—a conclusion confirmed by observations on the lower animals. Dr. Burdon Sanderson concludes, from a kymographic experiment on a rabbit, that Gelsemium exerts no influence upon the blood-pressure.

In sensitive people, Dr. Douglas (its original prover) states that he has repeatedly seen it produce a decided febrile chill, with subsequent reaction; the pulse is not very rapid, inclines to be full and soft; tongue has a moist, white fur. The main symptoms are those of oppression, with dull pains in the head, back, and legs,—such fevers as are produced by malaria, or some exanthemata.

Temperature.—Dr. Ringer believes that Gelsemium affects the temperature but little. In malarial fevers, the temperature is reduced slightly by the drug. But Dr. Bartholow claims that a very considerable reduction of temperature occurs from lethal doses in warm-blooded animals.

Sexual Organs, Male.—"Primarily, Gelsemium causes *impotence* from lack of muscular power in the penis, while it does not abolish sexual desire. *Emissions* that occur in the night with dreams, or by day from sexual excitement, *without erections*. Of great utility in spermatorrhœa."—Hale.

Sexual Organs, Female.—Dr. Hale says: "The primary effect of large doses of Gelsemium on the uterus, is to cause a *paralysis of its motor power*. This condition leads to those morbid states for which the remedy has been used so successfully in the high potencies; viz., *atony*, resulting in want of contractility, *false labor-pains*, *passive hemorrhages* from loss of contractility. It causes *congestion of the uterus*, *spasmodic pains*, *neuralgic pains*, *associated with cramps in the uterus and legs*; and I know no better remedy in most cases of *dysmenorrhœa*, *violent after-pains*, and *cramps in the uterine ligaments*. It affects all of the sphincter muscles."

Urinary Organs.—The action of Gelsemium upon the kidneys is to cause nervous excitement, with a profuse flow of limpid, "nervous urine;" and it produces a paretic state of the sphincter muscle of the bladder, causing enuresis and "wetting the bed," and spasmodic retention of urine.

Digestive Organs.—Its action here is but very slight.

Therapeutic Individuality.

This remedy is especially adapted to nervous, excitable, hysterical females; sensitive people and little children; to male and female onanists, and to malarial diseases.

Hysteria, with spasms, palpitation of the heart, great nervous excitability, and copious flow of nervous urine.

Head.—Great depression of spirits in onanists, with confusion of the mind, and excessive languor.

Intense congestion of the brain in children during dentition.

Nervous headache; the pain commences in the cervical portion of the spinal cord, and then spreads over the whole head. (See Sanguinaria.) "Nux vomica is opposite; its pain extends from over the head down the spine."—*F.*

"Sensation as of a band drawn tightly around the head above the ears, with a feeling of great soreness of the scalp and brain."

—*H. V. Miller, M. D.*

"Can not get to sleep on going to bed at night, on account of thinking, which she can not control, in sensitive people."—*J. C. Morgan.*

"It has no anxiety with fear of death, like Aconite and Veratrum viride, but a torpor, a sleepiness, and dread of movement, which is an unfailing indication."—*Hale.*

"The typical headache may come on suddenly, with dimness of sight or double vision; vertigo; great heaviness of the head, it feels too big, and often too light; semi-stupor; heavy expression; full pulse, and general malaise."—*Hale.*

"Gelsemium stands foremost where symptoms of depression from heat show themselves; vertigo, dilatation of the pupils, dimness of sight, and a dull, confused headache spreading from the occiput over the whole head; no thirst; no appetite, and feels completely played out."—*S. Lilienthal.*

"Blind headaches, shooting pains into the ears when swallowing; can not sit or lie, has to stand or walk."—*S. Swan.*

Vertigo as if intoxicated, with headache and blindness, and great drowsiness. In malarial poisoning.

"In all cerebral affections, stupor of the mental faculties, and wild, incoherent delirium, are the rule, while active excitement and violent delirium are the exception."—*E. M. Hale.* [Except in hysterical diseases.]

Eyes.—"Especially adapted to diseases of the fundus, and paralysis of the nerves."—*A. and N.*

"Ptosis coming on after an attack of ophthalmia, cured in forty-eight hours."—*A. and N.*

"In inflammatory affections of the retina and choroid, it is particularly useful."—*A. and N.*

GELSEMIUM SEMPERVIRENS.

in insufficiency of external rectus; the edges of the lids as if they had been crying, with hypermetropia from sun or gas light. (Many cases cured by I. D.)

heavy lids; heaviness, impossible to raise the lids; tendency to squint."—*A. and N.*

correct it by his will; diplopia on looking sideways; diplopia and dim vision during pregnancy. Swimming, black specks before the eyes; vision dim, can neither read nor write, words run together; can not recognize one across the room, with heat in the eyes extending to the forehead, as if a snake were before his vision, with pain over the eyes; blindness, dilated pupils, and photophobia."—*A. and N.*

"Paralysis of the oculo-motor and of the abducens; diplopia, and spasms of various muscles throughout the body."—*A. and N.*

"Retinitis from albuminuria, with sudden dimness of vision, and white patches; extravasations of blood in the retina."—*A. and N.*

"Chorio-retinitis; there seems to be a bluish snake before the vision. In detachment of the retina, great benefit has been seen from the use of Gelsemium."—*A. and N.*

"Serous choroiditis, with decided hyperæmia of the optic nerve and retina; haziness of the vitreous humor; aching pain over and in the eyes; dilated pupil, great soreness of the eyeball to the touch. Small, transparent points on the cornea, look like swollen ends of nerve-filaments; very sore to touch or movement. Amaurosis; pupils dilated, vision nearly lost, following diphtheria."—*A. and N.*

Amaurosis from masturbation; mind and body prostrated.

Eyeballs oscillate laterally when using them.

Congestive facial neuralgia; the pains are grumbling or shooting; worse on pressure, especially if malarial.

Digestive Organs.—Tongue and glottis partially paralyzed; speech thick, from congestion of the base of the brain; can hardly protrude the tongue, it trembles so.

Dysphagia; paralysis of the organs of deglutition.

Painful sensation of a lump in the œsophagus that can not be swallowed, in hysterical women.

Involuntary diarrhœa from depressing emotions.

Catarrhal diarrhœa, with spasmodic colic and tenesmus.

Kidneys.—Profuse, copious, limpid urine, in nervous hysterical women.

"Enuresis, from paralysis of the sphincter; wetting the bed, in children; paralysis of the bladder in old people, and involuntary micturition from exciting emotions."—*E. M. Hale*

Dysuria, and spasmodic retention of urine.

Bladder.—Paralysis of sphincter vesicæ following diphtheria.

Sexual Organs, Male.—Weak, irritable sexual organs.

Spermatorrhœa without erections; much flaccidity and coldness of the genital organs, accompanied with great languor and depression of spirits. Nocturnal emissions, with sexual dreams; followed the next day by great languor and irritability, with pain in the base of the brain.

Gonorrhœa, acute stage; many physicians think no remedy is more useful (given in the tincture); but give me *Aconite* every time. W. F. Green, M. D., says Gelsemium is a sovereign remedy in the acute stages, in doses of from one to four drops of the tincture every two to four hours.

Sexual Organs, Female.—Especially adapted to hysterical women, with spasms, feeling as if there was a lump in the throat that can not be swallowed, and a general numbness of the extremities.

Hysterical women, with rigid os during labor, attended with much nervous excitement.

For sudden hysterical spasms, put ten drops of the tincture, or first dilution, in half a glass of water, and give one dessert spoonful every half-hour or hour. It will cure about every case we are called to treat.

Dysmenorrhœa, with a feeling of faintness at the stomach, with vertigo and headache; the flow is scanty, and very painful. (Give it in hot water. Dr. M. F. Page claims, that, if the remedy is given in hot water, it acts much better, because it is absorbed with greater celerity.)

Dysmenorrhœa, with spasmodic neuralgic pains, with cramps in the uterus and legs; and a general hysterical condition.

Rigid os uteri; deficient, irregular labor-pains, passing from before backward; face flushed, and patient dull and apathetic.

"After-pains; cramps in the uterus, commencing in front and extending upward and backward."—*Dr. Hale*.

"There is no more generally useful remedy in ovarian neuralgia. The pains of dysmenorrhœa are greatly relieved by it. The evidence is conclusive that it suspends after-pains, and quiets the nagging pains of the first stage of labor."—*Bartholow*.

"Threatened with convulsions during confinement; the pulse large and soft; face puffed, and the expression heavy."—*Hale*.

Threatened abortion from sudden depressing emotions.

"During pregnancy; double vision, headache; drowsiness, vertigo, pulsating carotids, small, slow pulse; can not walk, for the muscles will not obey; cramps in the abdomen and legs; convulsions with unconsciousness."—*Hg*.

"Sensation of a wave from uterus to throat, ending with a choking feeling; impeding labor; impending spasms."—*Hg*.

Fever.—Nervous chills, with shivering, and chattering of the teeth, depending upon some irritation of the nerves of motion, in very sensitive subjects; from fear or fright; they often attend relaxation of the os uteri in labor, or occur after labor has just been completed.

"Gelsemium is the remedy when the fever develops under circumstances which favor a paresis of the motor nerves of both voluntary and involuntary muscles. It corresponds to that stage in which the blood-vessels are dilated and full, but lack the firmness and resistance of a fully developed sthenic inflammation. Such a form of fever is accompanied by languor, muscular weakness, desire for absolute rest, and drowsiness."—*Dr. E. A. Farrington*.

"Irritable, sensitive children, sometimes wakeful; nervous, even threatened with convulsions; or drowsy; eyelids heavy, want to remain perfectly quiet; chills up and down the back; followed by fever, with increased drowsiness; pulse full, soft; sweat moderate, with relief."—*Dr. E. A. Farrington*.

"Fever without thirst, wants to be still and rest."—*J. B. Bell*.

This is a very valuable remedy in intermittents, where the nervous symptoms predominate. The chill and fever are severe, but not much sweat; occur daily, with great restlessness.

Irritative, remittent, and intermittent fevers in very nervous, sensitive people and children, with excessive erethism, and no gastric, hepatic, or visceral complications.

"Chills begin in feet or hands and run upward; long but not hard chill; great nervousness; evenings."—*J. Jeanes, M. D.*

Catarrhal fevers; chilliness up the back; can not move away from the fire without chilliness, with torpid condition.

Typhoid fever; the nervous symptoms predominate; the patient is drowsy and stupid, with great debility; legs and arms tremble when moving, with some chilliness.

Eruptive fevers, especially measles, with torpor and a tendency to convulsions, and great nervousness.

Cerebro-spinal fevers, especially if caused by malaria, with stupor, and tendency to convulsions; intense passive congestion; wild, incoherent delirium; sweating relieves; trembling, weak limbs; bruised pains in the muscles.

Lungs.—Convulsive, spasmodic cough, especially in hysterical women. Irritative cough without expectoration.

"Where there is excessive excitability of the respiratory center; a small secretion of mucus, with violent and frequent cough."
—*Ringer*.

"It is all the better indicated in catarrhal difficulties, if motor disturbances occur, such as spasm of the larynx, pharynx, and glottis; or so-called spasmodic asthma."—*Hale*.

"Congestive stage of pneumonia; excessive restlessness."—*Hg*.

"A feeling as if the heart would stop beating."—*Hg*.

Cardiac neuroses, especially if in hysterical subjects.

Spine.—Pains from spine to the base of the brain.

Congestion of the spine; bruised feeling of the muscles, which will not obey the will, with languor and prostration.

Dull, heavy pains in the sacral region. Paralytic condition of the lumbar and sacral muscles in onanists.

In progressive locomotor ataxy, Dr. R. McClatchey has found it, in the low dilutions and tincture, of great value.

Feeling of lightness in the body from spinal exhaustion in onanists and hysterical subjects.

Extremities.—Deep-seated muscular pains in legs, relieved by motion.

"Deep-seated dull aching pains in the limbs and joints, generally induced by cold, with loss of motion."—*Hg*.

"Coldness of the extremities, especially of the feet, as if in cold water; anguish and pain in the legs."—*Hg*.

"Heaviness, weight; loss of voluntary motion; muscles will not obey the will; calves feel bruised, pain at night."—*Hg*.

Numbness; feeling as if the limbs were going to sleep, in nervous, hysterical subjects. General paralysis.

Antidote.—Electricity is said to be a complete antidote to Gelsemium.

Aggravation.—By rest; warmth in bed; sudden emotions; fright; wine; and damp, changeable weather.

Amelioration.—From open air; cold; and continued motion.

GLONOINE.

Nitro-Glycerine.

Chemical remedy. Alcoholic attenuations.

Antidotes.—Camph., Coff., Nux vom., Acon., Amyl., Ether, Secale.

Through the cerebro-spinal nervous system, Glonoine has three special centers of action:

- I. CERE BRO-SPINAL SYSTEM. *Centric Vaso-Motor Paralysis.*
- II. VAGI. *Inhibitory Fibers Paralyzed; Circulation Excited.*
- III. GASTRO-INTESTINAL CANAL. *Neuroses; Congestion; Catharsis.*

Brain and Spinal Cord.—Through the cerebro-spinal nervous system, this powerful remedy acts especially on the cerebral blood-vessels, irritating the brain, medulla oblongata, and vagi. No remedy causes so quickly and so violently such a severe congestive, throbbing, and bursting headache. This results from increased action of the heart and arteries; and it is sometimes attended with nausea and vomiting.

Hughes says: "What is the *rationale* of these striking symptoms? The sudden increase in the frequency of the heart's action may be caused either by direct stimulation of its substance or ganglionic nerves, or by depression of the influence of the vagi. The rapidity with which it supervenes, and the lack of tension in the pulse, lead one to ascribe it to the latter mode of action. On what, then, depend the head symptoms? At first sight, they would seem secondary to the increased action of the heart. But this theory is excluded by the fact that in one of Dr. Dudgeon's provers the head was not affected at all, although the pulse rose very high indeed. We need a special action on the arteries themselves to account for the cerebral phenomena present; and for this we have only to suppose that Glonoine affects the neighboring vaso-motor center in the same manner as that of the vagi. The same sedative influence would then, through the inhibitory fibers of the vagi, set the heart off palpitating, and through the vascular nerves, would dilate the arteries. In confirmation of this view, we often find the provers describing the sense of throbbing as felt all over the body, though especially in the head.

"All this reminds us of Amyl nitrite. But a little attention will show that the effects of the two drugs are not identical. Amyl causes a general flushing, without marked sense of throbbing or special localization in the head; nor is the pulse much affected by it. Glonoine differs from it in all these points. Accordingly, it has been demonstrated that Amyl produces its dilating effects on the arteries by *directly paralyzing their muscular coats*, and acts simply on other muscular parts; while Glonoine affects the nervous centers of the circulation, and is limited to this sphere.

"It is clear, that, if the Homœopathic principle is worth anything at all, Glonoine ought to be a remedy for some active disturbances of the cerebral circulation. It would not act as *Belladonna* does, upon such congestive states as depend on irritation of the brain-substance, and tend to inflammation. With *Belladonna*, the circulation within the cranium is excited because the brain is irritated; with Glonoine, the brain is irritated because the circulation is excited. But it would be indicated in such hyperæmia as can be produced by excessive heat or cold, by strong emotions, by mechanical jarring, by suppression of the menses, or other hemorrhages and excretions."

Ziemssen says: "Small doses of Nitro-glycerine cause severe and long-lasting, persistent headaches, associated with an unpleasant knocking or hammering in the temporal regions, considerably increased by any movements of the head. Heaviness in the head, clouds before the eyes, vertigo, quickening of the pulse, palpitation, and a feeling of heat in the face have been noted as special symptoms of poisoning. Larger doses cause dyspnœa, oppression of the chest, lassitude, muscular weakness, and stiffness in the muscles of the jaw. Onsum lost consciousness after a dose of ten drops of Nitro-glycerine; on awaking out of this unconsciousness, there occurred severe headache, and general muscular tremors. There were no true convulsions. In three fatal cases, death without convulsions succeeded severe dyspnœa, with cyanosis in the condition of coma. Autopsy revealed hyperæmia of the cranial contents.

"The effects on frogs when Glonoine is given, consist in tetanic convulsions, followed by general paralysis. Even mammals get convulsions, besides dyspnœa, quickened pulse, mydriasis, and general paralysis. In frogs, no convulsions occur if the cerebrum be removed previous to the poisoning."

Digestive Organs.—Glonoine acts also upon the digestive apparatus, as shown by the burning in the throat; nausea, vom-

iting, hiccough; pain in the epigastrium, and sometimes severe colicky pains with diarrhœa.

Therapeutic Individuality.

Head.—Intense congestion of blood to the head, with a feeling as if the temples and top of the head would burst, often accompanied with violent throbbing headache.

"Feeling as if the whole head was swollen, with tightness and throbbing in the temples."—*Dr. Bayes.*

A feeling as if the head was too large and full of blood, is one of the most prominent symptoms of Glonoine.

"Fullness in the head and throbbing pain in the temples, so that it could be counted."—*Riehle.*

"Fullness in the base of the brain and violent throbbing of all the arteries of the head and back of the neck."—*Jackson.*

"Fullness of the head as if all the blood had mounted to the head, or as if he was hanging head downward, and there was a great rush of blood to head."—*Dr. Junod.*

"Tensive headache over the eyes and nose, followed by a tight and choky feeling about the throat."—*Dr. Thoroughwood.*

Vertigo, fainting, with violent throbbing of the temporal arteries. Congestive nervous headache, with gastric or bilious symptoms, caused from anxiety or fright.

Violent headache with the catamenia, increasing with motion; has to tie the head up; with cold feet.

Flushes of heat in the head, with violent throbbing headache.

"It is a capital remedy for the disturbance of the intracranial circulation which obtains in *menopausia*, and for that which often results from menstrual suppression."—*Hughes.*

"Such excessive determination of blood to the occiput that it seems as if he would lose his reason."—*Zumbrock.*

"It has proved the great remedy for sunstroke."—*Hughes.*

"Sun-headache, dullness, stupidity, emptiness, and somnolence."—*R. J. McClatchey.*

"Bursting feeling in the head, tremulousness about the chest, the mind bewildered."—*Dr. T. S. Scales.*

"The heart is affected before the head, alternate congestion of the heart and head."—*C. Wesselhoeft, M. D.*

"Sensation of soreness through the whole head, he is afraid to shake his head; it seems as if his head would fly to pieces."—*Vinal.*

Headache with violent vertigo, nausea and vomiting.

"Violent vertigo, with dimness of vision."—*Reil.*

Hot flushes of the head, affecting the whole body, with a feeling as if the whole surface would break out in sweat.

Flushes of heat in the head and face, with vertigo.

"One of the most promising remedies in convulsions of children, arising from cerebral congestion; especially in the incipient stages of meningitis in plethoric children; cases that seem to call for *Belladonna* during dentition."—*C. Wesselhoeft.*

"It has checked *puerperal convulsions* where cerebral hyperæmia was prominent."—*Hg.*

Congestive headaches, vertigo, threatening apoplexy, with palpitation of the heart.

"Long-lasting (for years) pain in the occiput, sure to come on after standing at the wash-tub all day; sometimes with vomiting; relieved by heat."—*Nankivell.*

"Agonizing pain in the eyes of a boy every evening; obliged to keep the palms of the hands against the eyeballs, and lie with his face downward."—*Nankivell.*

"Severe headache; pulsation in the temples; fullness and heavy pain on the vertex; the least motion greatly aggravates; had the hair cut short to relieve the heat and heaviness; no appetite; attempting to rise, such weakness of the limbs she could not stand."—*Dr. Lippe.*

One of the most valuable remedies we have for the first stages of meningitis of children; fever exacerbates morning and evening; frequent starting up from sleep; grasping the head or bending it back into the pillow; much vertigo, with frequent pale, and then flushed, face. (Give the 2d dec. dilution, two drops every two or three hours. It is of no value after serous effusion.)

"Loss of location when walking on streets that he has traveled for years."—*Dr. C. H. Cochran.*

Eyes—Flashes of lightning-like sparks before the eyes, with photophobia; pupils dilated; eyes rolled upward.

Digestive Organs.—Throbbing pain in all the teeth.

"Toothache; pain continues, with sudden aggravations."—*S. Lilienthal.*

Chest and Heart.—Inclination to sigh; deep inspirations.

Congestion of chest, with great throbbing in epigastrium.

"Violent action of the heart, distinct pulsation over the whole body; the number of beats greatly increased; feels the pulsation in the fingers."—*Hg.*

Angina pectoris, with violent action of the heart; heart easily excited, with sensation of throbbing throughout the body.

Aggravation.—By motion and heat; can not bear any heat about the head; can not walk in the sun, must walk in the shade; can not even bear the heat of a stove; head symptoms greatly aggravated by rising up and walking.

Amelioration.—At night, in the open air; from gentle exercise. The head symptoms are relieved by pressure.

GRAPHITES.

Plumbago.

Metalloid In Europe, etc. Triturations.

Antidotes.—Ars., Nux vom., Acon., Ant. cr., Sulph., Wine.

Through the great vegetative nervous system, Graphites has four special centers of action:

- I. SKIN. *Moist, Sticky Eruptions; Fissures; Corns; Eczema.*
- II. LYMPHATIC SYSTEM. *Enlarged; Secretions Acrid.*
- III. SEXUAL ORGANS. *(1) Excited; (2) Prostrated; Anæmic.*
- IV. DIGESTIVE ORGANS. *Atony; Constipation.*

Skin.—The action of this remedy upon the skin is very marked, probably through the lymphatics. It produces moist, sticky eruptions, eczema, fissures or cracks on the fingers, corners of the mouth, on the nipples, anus, and between the toes; scabby eruptions exuding moisture, erysipelas. The disposition to form fissures and cracks of the skin is very characteristic, with enlarged lymphatic glands.

Sexual Organs, Male.—Graphites produces decided increase of the sexual appetite, with ejaculation of semen too soon. The testicles become swollen and much hypertrophied.

Sexual Organs, Female.—We believe that this remedy produces anæmia of the ovaries, from the fact of the scanty and delayed menses being so prominent an effect upon these organs.

The lymphatic system of the uterus is also congested, as shown by the profuse acrid leucorrhœa.

Digestive Organs.—The digestive tract is below par, as shown by the sour stomach, great accumulation of gas in the bowels, and excessive constipation.

Therapeutic Individuality.

Sexual Organs, Male.—"Voluptuous irritability of the genitals."—*Hah.*

"Revival of the sexual desire and fantasies."—*Hah.*

"No ejaculation follows coition, in spite of every exertion."—*Hah.*

Great sexual prostration, with emissions of semen every night.

"The prepuce swells to a large water-blister without pain."—*Hah.*

Hydrocele, with swollen testicles and general anasarca.

Sexual Organs, Female.—For ladies that have scanty and delayed menstruation, with constipation and inclined to obesity, no remedy will give better satisfaction than Graphites. "Especially adapted to females inclined to obesity, and whose history reveals a disposition to delaying menstruation."—*G*

"Menses too late, pale, and scanty."—*G.*

Delayed menstruation, with obstinate constipation.

"Menses are delayed and are scanty; they are imminent for several days before the flow fairly sets in. The onset is accompanied by a variety of accessory symptoms (as with *Sepia*), such as hoarseness with dry cough, headache evenings, swelling of the feet, and painless swelling of the cheeks; chilliness, colics like labor-pains, backache."—*D.*

"Leucorrhœa copious and thin, causing a biting, smarting sensation in the vagina."—*D.*

"Very profuse leucorrhœa, the discharge occurs in gushes, day or night, and is often excoriating."—*G.*

"During the menses, severe pain in the epigastrium, as if everything would be torn to pieces."—*G.*

"Feeling as if the womb would press out of the vagina, with obstinate constipation, in fleshy women."—*G.*

The ovaries are indurated, enlarged, or anæmic, and not able to perform their functions.

"Morning sickness during menstruation ; she feels so weak that it is with difficulty she can persuade herself to perform her accustomed duties."—*G.*

Great itching of the pudenda a few days before menstruation.

"Mastitis, in all cases where there are so many old cicatrices from former ulcerations, that the milk can scarcely flow ; this remedy high, will now cause the milk to flow easily, and ward off the impending abscess ; although many times tried, has not failed me in a single case."—*G.*

For deep cracks in the nipples, Graphites cerate is well-nigh a specific.

"Graphites is in climaxis what Pulsatilla is in youth."—*Lilienthal.*

Head.—"Burning round spot on the top of the head."—*G.*

"Congestions of the head, with roaring in the ears in young people."—*G.*

Violent frontal headache, worse mornings.

"Scabby eruptions, exuding moisture, appear on the scalp, sore to the touch, and cause the hair to fall."—*D.*

"Phlegmonous erysipelas of the head and face, with burning, tingling pains."—*J. S. Douglas, M. D.*

For chronic erysipelas of the face and head, this is a splendid remedy.

Eyes.—Redness and inflammation of the margins of the lids, especially the outer canthi, which have a great tendency to crack and bleed when opening them.

"For serofulous ophthalmia, with ulcers and pustules, it is second to no other drug. It has cured deep ulcers of the cornea, even with hypopyon ; but it is more particularly adapted to superficial ulcerations, especially if resulting from pustules, often with considerable vascularity of the cornea, especially if chronic."—*A. and N.*

Intense photophobia, with acrid discharges.

Eczema of the lids, dry scales on the ciliæ, itch much, with a constant desire to rub and scratch the lids.

But few remedies in the *Materia Medica* so useful in chronic inflammation of the lids, conjunctiva, and cornea.

Pale, unhealthy children, with scabs round nostrils and lips.

Digestive Organs.—Breath smells like urine.

Taste like rotten eggs, in the morning.

Accumulation of much mucus in the throat.

Coated tongue, bitter taste, and eructations of sour water.

Sour vomiting, with flatulence.

Slow, imperfect digestion, accumulation of flatulence in the abdomen, with much distention.

"Constipation; large, difficult, knotty stools."—*G.*

"Constipation; stools hard, lumpy, and evacuated with great difficulty, accompanied with mucus and blood."—*D.*

"Stools pappy, brown, with undigested food, and of an atrociously putrid odor."—*D.*

Urinary Organs.—Urging to urinate, with dribbling after the usual discharge; nocturnal enuresis.

Urine dark colored, with red or whitish deposit.

"The urine becomes turbid, and deposits a white sediment."—*Hah.*

Skin.—"A very characteristic symptom of this remedy, is the exudation of a thin, *sticky, glutinous*, transparent, watery fluid from any raw place or sore."—*G.*

"Rhagades, excoriations, and ulcers on the skin."—*Hughes.*

"Raws in the bends of the limbs, groins, neck, behind the ears, especially in children."—*Lippe.*

"Unhealthy skin; every injury suppurates."—*Lippe.*

"Erysipelatous, moist, scurvy sores. Skin red, callous; nails brittle and crumbling, with deformities; complaints of the nails in general; painful, sore as if ulcerated. Tetters in general; corroding and spreading."—*G.*

Ingrowing toe-nail; old ulcers with fetid pus.

"Itching eruptions full of corrosive water, in many parts of the body; tettery eruptions that itch much."—*Hah.*

Burning and swelling of the feet; excoriations between the toes.

Much dryness of the skin, without perspiration.

The skin of the hand is hard and cracked in several places.

The whole body very weak and exhausted.

Swelling and induration of the lymphatics and glands; very liable to take cold from the least cold air.

In General.—This remedy is especially adapted to females with a tendency to unhealthy corpulence, deformed nails, and menstrual irregularities.

Aggravation.—In the night; during menstruation, especially suppressed menstruation; from light, and motion.

Amelioration.—In the dark; walking in open air, and external warmth.

GUMMI GUTTÆ.

Gamboge.

Habitat: India, etc. Tincture of the Gum-resin, Class IV.

Antidotes.—Coff., Op., Kali carb., Camph., Coloc.

Through the abdominal sympathetic nervous system, Gamboge has three special centers of action:

- I. PNEUMOGASTRIC NERVE. *Nausea and Vomiting.*
- II. INTESTINAL C. *Hydragogue Cathartic; Gastro-Enteritis.*
- III. KIDNEYS. *Copious Diuresis; Ascites.*

Digestive Apparatus.—Three to five grains cause nausea, bilious vomiting, colicky, griping pains and copious watery evacuations. In regard to the stool, it has been proved by Radziejewsky that there is no more water in stools produced by Gamboge than in those that follow the use of Croton oil. Taken in larger doses, Gamboge produces actual inflammation of the intestines; the violent abdominal pain, vomiting, and purging are followed by collapse and death. Bartholow says: "It is an irritant to the gastro-intestinal canal, increases secretion of the glands, excites vomiting and intestinal pain, and purges violently, producing copious watery stools. The experiments of Rutherford and Vignal show that Gamboge is not an hepatic stimulant, but does cause hydrocatharsis. Violent gastro-enteritis is set up by large doses; yet but few fatal cases have been reported."

Kidneys.—Abeille found, that, when given in small but gradually increasing doses until it reached the quantity of about twenty grains a day, it no longer purged, but seemed to produce copious diuresis, and the evacuation of dropsical effusions, for the removal of which it was prescribed. The form of dropsy it is particularly useful in is anasarca, and some cases of *ascites*.

Therapeutic Individuality.

Gastro-Intestinal Canal.—"Nausea, with horrid vomiting, purging, and fainting. Profuse watery diarrhœa, with colic and tenesmus."—*Hempel*.

Darting, gnawing pains in the stomach; excessive vomiting.
Inflation and tension of abdomen; copious watery diarrhœa.
Diarrhœa of watery mucus, with colicky pains in the umbilicus during stool.

Stools very fetid, and come away with a gush all at once; or mucus and blood, with great tenesmus.

Diarrhœa, with burning pain and tenesmus of the rectum, protrusion of the anus and constant pinching around the umbilicus, sometimes with mucous stools.

Profuse watery diarrhœa, with colic and tenesmus.

"Discharge of yellow and green diarrhœic fæces, mixed with mucus, preceded with excessive pain around the umbilicus."—*Allen*.

"Feeling of great relief in the abdomen, as though an irritating substance were removed from the intestines; burning in the anus; it is sore and excoriated."—*J. B. Bell, M. D.*

Bell says it closely resembles Aloes. It may be distinguished, however, by the absence of hæmorrhoids, and by the rapid expulsion of the stool.

Urinary Organs.—Increased secretion of urine, or if in dropsy diminished secretion, with emissions of a few drops at a time.

In General.—The majority of the symptoms come on while sitting and go off during motion in the open air.

Aggravation.—Forenoon, or during the day.

Amelioration.—In the open air, and from pressing the abdomen.

HAMAMELIS VIRGINICA.

Witch Hazel.

Habitat: America, etc. Tincture of the fresh bark and twigs, Class III.

Antidote.—Puls.

Through the spinal nervous system, Hamamelis has six special centers of action:

- I. VENOUS SYSTEM. *Congest.; Inflam'tion; Varicosis; Hemorrhages.*
- II. SEXUAL ORGANS, MALE. *Neuroses; Orchitis; Varicosis.*
- III. SEXUAL O., FEMALE. *Ovarian Neuralgia; Passive Hemorrhage.*
- IV. DIGESTIVE ORGANS. *Hæmatemesis; Hæmorrhoids.*
- V. LUNGS. *Hæmoptysis.*
- VI. FIBROUS TISSUE. *Rheumatoid Inflammation.*

Venous System.—It produces venous congestion, inflammation, varicosis, and hemorrhage. The endangium or inner coat of the vein becomes congested and inflamed, thereby narrowing the caliber of the sanguinary channel, especially in the venous capillaries of the skin and mucous membrane.

Dr. Hale says: "Its action seems to be confined almost altogether to the *venous system of blood-vessels*. It may be called the *Aconite of the veins*,—acting upon those vessels as Aconite acts on the arteries. Its primary action appears to cause a spasm of the vaso-motor nerves which supply the veins (if a drug is capable of causing spasm of those nerves, and not, at the same time, of the arteries). It also acts as an irritant to those vessels to such an extent as to cause a condition favorable to, if not actually ending in, inflammation of their coats. The secondary action leads to the other extreme; and we have paresis of those nerves, and thence paralysis of the coats of the veins, leading to varicosis, venous congestion, hemorrhages, and even structural lesions."

Sexual Organs, Male.—In my proving of this remedy, it produced such intense and violent neuralgia of the testicles that I had to stop the experiment. Sometimes the pains migrated suddenly to the stomach, causing nausea and faintness. They were

accompanied with frequent emissions, great depression of mind, and irritability; great prostration of the animal passions; profuse cold sweat on the scrotum; relaxation of the genital organs, and varicosis of the spermatic veins. It has proved of untold value in orchitis and varicosis.

Sexual Organs, Female.—It produces in the female great irritation, congestion, inflammation, and neuralgia of the ovaries; passive hemorrhage from the uterus, and irritations of the venous capillaries of the mucous membrane of the uterus and vagina. Its action upon the ovary is doubtless to produce venous congestion.

Therapeutic Individuality.

Venous System.—"The three leading forms of venous disorder are phlebitis, varicosis, and hemorrhage.

"1. In simple phlebitis, you can hardly put too much confidence in Hamamelis. It acts even better than Pulsatilla, which has great virtue here. Dr. Preston commends it for phlegmasia alba dolens; but I think that it will often cause disappointment there; the lymphatics are, I take it, more frequently at fault than the veins in that disease.

"2. In the various forms of varicosis, this is the prince of remedies. In varicose veins of the leg, you will be delighted with the way in which the first or second dilution will ease the pain, while the external application of the diluted tincture will cause the dilated vessels to shrink up. Varicose ulcer of the leg may be healed by similar treatment, to which, also, varicocele and cirsocele have often yielded. It is good for varicosis of the throat, where the parts look bluish from distended veins, and there is more or less discomfort, with pain on swallowing, and hawking of mucus with blood. Such a throat is often seen in gouty subjects. But it is in this same condition at the other end of the digestive tube, viz., in hemorrhoids, that Hamamelis has won its greatest triumphs. I have cured case after case of 'bleeding piles' by the internal use of this medicine; and, indeed, can safely say, that, in an experience of more than twelve years, it has never failed me. Even where there is not much bleeding, Hamamelis will cure piles if they are a local manifestation of a general tendency to varicosis.

"3. We are thus led to the use of Hamamelis in hemorrhages generally, for which mischance it is, perhaps, more frequently indicated than any other remedy. The general evidence of those who have used it agrees with that of Dr. Preston, that it is in venous

hemorrhages, where the blood flows steadily and without expulsive effort, that this drug is likely to cure. I have often myself suggested that it is more suitable when the state of the vessels leads to the hemorrhage than where this is dependent upon altered composition of the blood itself. If this canon be true, it defines the place of Hamamelis in purpura. There are many cases on record showing its efficacy. I have myself seen one; but I think that, in all, the vessels, and not the blood itself, were at fault. Dr. Ringer speaks of being disappointed with it in epistaxis occurring in a lad with the hemorrhagic diathesis; where, perhaps, the same explanation will hold good. Otherwise, this form of bleeding is remarkably under its control, as also hæmatemesis, melæna, and hæmoptysis of a passive venous type. Dr. Ringer has known it to arrest hæmaturia in four cases which had resisted many other remedies, and to check the oozing of blood which sometimes goes on for weeks after delivery. Dr. Dyce Brown finds it very successful in uterine hemorrhages generally. It has also cured vicarious menstruation, and helped much in the treatment of dysentery."—*Hughes*.

"In passive hemorrhages from all parts, whether from the nose, stomach, lungs, or bowels, I have the utmost confidence in its use."—*Hughes*.

"Bleeding hæmorrhoids, with burning soreness, and at times rawness, of the anus, from portal congestion; the hemorrhage is generally very profuse. (Locally and internally.)"—*Hale*.

"Dysenteric stools, loaded with dark, black blood."—*Dr. Dunn*.

For hemorrhages from the bowels in typhoid fever, I have used it, with most excellent results, by injections into the rectum, —two drachms to the pint of water.

"Hæmoptysis, active or passive, blood venous and comes up into the mouth without coughing or scarcely any effort."—*Dr. W. C. Payne*.

I have cured many cases of hæmoptysis with this remedy, where the blood was dark colored, and raised with but little effort.

Long-lasting hemorrhages from extracting teeth.

Dr. P. Jousset says: "It is indicated in an abundant sanguinary flow, and, above all, with those persons who have varices of the anus. Clinical experience has confirmed this indication very extensively, so that the Hamamelis may be looked upon as a certain remedy."

"For varices, inject twenty minims of proof-spirit [better try Hamamelis] behind the vein, which is lifted with a fold of the skin. This will cure without fail or danger."—*Bartholow*.

Sexual Organs, Male.—In orchitis, with much pain and great swelling of the testicles. I have cured many cases, using it locally and internally.

Neuralgia of the testicles, pains dart from the testicles to the stomach, worse nights and during rainy weather.

Impotence, organs greatly relaxed and perspire constantly.

Varicosis of the spermatic veins, testicles much swollen, with drawing pains in the spermatic cord. (Locally and internally.)

Sexual Organs, Female.—Hamamelis is of great value in congestion, inflammation, and neuralgia of the ovaries, with cutting, tearing pains in the ovary, which is swollen and very tender.

"Ovarian disease, accompanied with much swelling and tenderness. (Locally and internally.)"—*Ludlam*.

"Ovaritis from mechanical injury; ovarian region much swollen and tender; much pain over the whole abdomen."—*Dr. Okie*.

Frequent paroxysm of pain in the left ovary, passing down to the uterus, with anæmia; and every day or two the ovarian region becomes much swollen.

"Locally and internally, I have prescribed this drug in numerous cases of ovaritis, with remarkable results. It seems appropriate to the sub-acute attacks of this disease, which are incident to pregnancy and menstruation. I have no question of its power, in some instances, to prevent abortion, where such a mishap threatens in consequence of ovarian irritation and inflammation."—*Dr. R. Ludlam*.

Dysmenorrhœa from ovarian irritation.

"Vicarious menstruation from ovarian irritation."—*Kenyon*.

Passive venous uterine hemorrhage. When the hemorrhage has been bright red and active, with me it has failed; but, for passive chronic or sub-acute uterine hemorrhage, it is wonderfully curative.

"Leucorrhœa, with much relaxation of uterine walls."—*Hale*.

Varicose veins in the limbs of pregnant women, and *phlegmasia alba dolens*, when it is a phlebitis. (It should be given internally and applied locally.)

Eyes.—In conjunctivitis, locally and internally, Hamamelis has been of great value; and, in hemorrhages of the anterior chamber of the eye, it has given speedy relief.

It has also been used locally and internally in articular and muscular rheumatism, with good results.

The pains are often unbearable, with great sensitiveness to the touch, and fear of exciting new pain on moving. This shows it has a specific action on the posterior spinal nervous system.

HELLEBORUS NIGER.

Christmas Rose.

Habitat: Europe, America, etc. Tincture of the dried root, Class IV.

Antidotes.—Camphor, Cinchona, Iris, Podophyllum.

Through the cerebro-spinal system, Helleborus has eight special centers of action:

- I. GLANDS. (SALIVARY, PANCREAS, LIVER.) *Increased Sec.*
- II. STOMACH (VAGI.) *Nausea and Violent Vomiting.*
- III. INTESTINAL C. *Gastro-Enteritis; Hydragogue Cathartic.*
- IV. KIDNEYS. *Congestion; Inflammation; Albuminuria.*
- V. CIRCULATION. *Increased Blood-Pressure; Heart Slowed.*
- VI. BRAIN. *Congestion; Inflammation; Effusion.*
- VII. SPINAL C. *Congestion; Inflammation; Effusion; Paralysis.*
- VIII. SEROUS MEMBRANES. *Inflammation; Dropsical Effusion.*

Digestive Organs.—Salivation is always produced, with pricking and swelling of the tongue, accompanied with copious secretion of viscid mucus. Small doses stimulate the abdominal organs, augmenting the secretions of the liver and pancreas, quickening the peristaltic motion of the bowels, and causing diarrhoea. Large doses of this acrid irritant produce nausea, vomiting, colic, increased flow of bile, and violent purging; great thirst, spasm of the throat, with burning in the œsophagus and stomach. When death occurs, the stomach and intestines are found much inflamed, the rectum being particularly affected. Of its action upon animals, Stille says: "The breathing soon grows laborious and slow, the pulse slackens, and in a few minutes a disposition to vomit is apparent; mucus and bile are thrown up, saliva is copiously discharged, and there are signs of abdominal pain. The animal moves with tottering and feeble gait, has muscular tremors of the hinder, and then of the anterior, extremities, pants in breathing, and lies powerless upon the ground. At this stage, the efforts at vomiting cease; convulsions set in, and from time to time increase, and the animal perishes in

tetanic spasms. After death, the gall bladder and ducts are found distended with bile, and a large quantity of this fluid is contained in the small intestines. The liver is often congested; the gastric mucous membrane, that of the small intestine, and, if the animal has long survived, of the rectum also, is inflamed."

Helleborus niger contains two active medicinal principles, *Helleborein* and *Helleborin*, both of which are glucosides. Marme says, that *Helleborein* is an active cardiac poison and a drastic purgative; while *Helleborin* acts chiefly as a narcotic, producing in animals at first inquietude, soon followed by paresis both of motion and sensation, soon followed by death.

Kidneys.—It first produces scanty urine, with urging, soon followed by an abundant secretion of urine. *Helleborus* and *Helleborein*, are diuretic to animals, but cause hyperæmia of the kidneys. The first effect is to produce congestion of the renal organs, as shown by the scanty urine, which is soon followed by the opposite condition. This action has been most beautifully confirmed in post-scarlatinal dropsy. Phillips says, diuresis is constant, and the kidneys are hyperæmic after death.

Heart.—Upon the heart, *Helleborein* "acts chiefly in the same way as *Digitalis*, but more powerfully. The heart-stroke is retarded, and only becomes accelerated immediately before the approach of death; the blood-pressure is at first increased, as in the case of *Digitalis*, but afterward diminished; respiration becomes slow and labored, but continues after the heart has ceased to beat. Death is caused by cardiac paralysis. Convulsions are rare, the pupils remain unaltered."—*Dr. Von Boeck*.

Phillips says: "Small, repeated doses slow the heart; larger doses hurry its action and then usually arrest it suddenly. The action is through the vagus, and the blood-pressure is heightened both in the slowing and in the hurrying grade. Respiration lasts longer than the action of the heart; respiration is nevertheless affected."

Generative Organs.—The ancients always claimed great *emmenagogue* properties for Black Hellebore. Phillips says, that, in female animals, in cases of poisoning, the uterine mucous membrane is always and invariably congested; and Pereira says that it stimulates the pelvic circulation like *Aloes*, and is an *emmenagogue*.

Cerebro-Spinal System.—This is the most useful sphere of this remedy; and we find its action to be most profound; as shown

by the swimming in the head, giddiness, singing in the ears, uneasy sleep, and sometimes complete stupor. "Helleborin creates great excitement and restlessness, succeeded by paralysis of the lower extremities; this paralysis may extend over the whole body and pass into profound stupor and general anæsthesia; pupils dilated. In autopsies, hyperæmia and even hemorrhage are often found in the brain; the spinal marrow injected, its resistance diminished, and it is often the seat of extravasations."—*Marme*.

Hahnemann says: "I conclude, from various observations, that stupor, blunting of the general sensibility, a condition in which, with unimpaired vision, the patient, nevertheless, sees imperfectly and does not regard the objects he sees; with the apparatus of hearing intact, yet hears nothing distinctly nor comprehends; with his organs of taste in working order, yet finds not the proper taste in anything; is always or often distraught, hardly remembers, if at all, the past or what has but just happened; has no pleasure in anything; slumbers but lightly, without a sound or refreshing sleep; undertakes to work without having power or strength to attend to his work—these are characteristic primary effects of Hellebore."

It produces dropsical effusions of serous membranes and general anasarca of the cellular tissue.

Therapeutic Individuality.

Hellebore is especially adapted to diseases that affect the nervous centers, especially *hydrocephalus* when the stage of serous effusion has commenced. In this form of dropsy, the glucoside, *Helleborin*, should be used.

"Headache in occiput; dull pain, worse on stooping, from the nape of the neck to the vertex, aggravated and changed to burning on rising to the erect posture. The pain is so violent he knows not where or how to rest his head; he lays it every moment in a different position, at last finds it most tolerable when he compels himself to lie quiet, and, with closed eyes, to half doze, and so forget his pain."—*D*.

"In acute meningitis, Hellebore is one of our most important remedies when the exudation is regarded as accomplished. The exact time for its administration is when the reaction has become almost nothing, and the phenomena of paralysis have become more or less complete."—*Dr. Bachr*.

"Its most frequent use has been in typhoid and nervous fevers characterized by a similar stupor, and in the second stage of acute meningitis or hydrocephalus when the effusion has already taken place."—*D.*

"In mania of a melancholy type, with fixed ideas, or in mania dæmonica, in which evil spirits are seen at night, Hellebore has been an approved remedy from the earliest ages."—*D.*

"Slow comprehension, and easily made angry."—*Raue.*

"Soporose sleep, with screaming and starting."—*G.*

"Shocks pass through the head like electricity."—*Jahr.*

"Forehead drawn in folds, and covered with cold perspiration."—*G.*

"Squinting, pupils dilated."—*G.* (Hydrocephalus.)

"Hydrocephalus, which arises insidiously, the sequel of some other disease."—*E. C. Knight.*

The cases curable of hydrocephalus with this remedy are not of the tubercular character, but of acute or sub-acute inflammation of the serous membranes, followed by effusion; and it should be given before the stage of effusion has fully taken place, or the result will be a complete failure.

"Face pale and puffed, with rubbing of the nose."—*G.*

"Chewing motion of the mouth, nostrils dirty and dry."—*Raue.*

"Automatic motion of one arm and one leg."—*Raue.*

"Rigidity of the muscles of the neck and limbs, one or both."—*Dr. Barron.*

Digestive Organs.—Distressing dryness of the mouth.

Tongue very dry, trembles and feels stiff.

Copious salivation.

Nausea and violent vomiting, with much heat in the stomach.

Much rumbling in the abdomen, with excessive colic and debility.

Stools.—Stools watery; of tenacious white mucus or white.

Jelly-like, mucous stools, with urging tenesmus.

Of great value during dentition, with cholera infantum, stools as above, and strong symptoms of hydrocephaloid.

"A white, gelatinous stool like frog spawn is passed three or four times a day, with much pressure."—*Hah.*

"Watery diarrhœa, with nausea, colic, and great debility.

Much burning pain in the anus after stool.

Urinary Organs.—Frequent urging to pass urine, with scanty discharge, in anasarca or dropsy.

Passage of great quantities of urine. In sudden dropsy.

Of much value in post-scarlatinal dropsy, with sudden anasarca, and excessively scanty secretion of urine.

"I have often prescribed the tincture in doses of from five to fifteen drops every two or three hours, in cold water, with complete success in dropsical effusions, and particularly in general anasarca following scarlet fever, uncomplicated by organic disease."—*Dr. Phillips.*

Fever.—"The fever is made up chiefly of chill without thirst, and with painful sensibility of the head to touch and motion; with drawing, tearing pains in the limbs and stitches in the joints. The heat is chiefly in the head" (D.), showing that the posterior spine is mostly involved.

General Symptoms.—Chest very much constricted, has to gasp for breath with open mouth; can not breathe.

"Horrible convulsions, accompanied by extreme coldness."—*Hg.*

Complete loss of power of the muscles in both hands, with numbness in the arms.

Aggravation.—Head symptoms in the morning. Skin symptoms, evenings; bowels, after eating and drinking; during dentition, and exertion.

Amelioration.—In open air; sitting with bended head, and from distraction of the mind.

HELONIAS DIOICA.

False Unicorn.

Habitat: America, etc. Tincture of the fresh root, Class III.

Through the abdominal sympathetic, Helonias has five special centers of action:

- I. DIGESTIVE ORGANS. *Emesis; Catharsis; Atony.*
- II. KIDNEYS. *Increased Blood-Pressure; Albuminuria; Diabetes.*
- III. GLANDULAR SYSTEM. *Secretions Greatly Increased.*
- IV. SEXUAL O. (TESTICLES, OVARIES, MAMMÆ.) *Secretions Increased.*
- V. BLOOD. *Anæmia from Atony.*

Digestive Organs.—Dr. Paine (Eclectic) says: "Five to fifteen grains act as an *emeto-cathartic*, producing a *gripping, burning sensation in the epigastrium* and great activity of the salivary glands. Indeed, I have known the most perfect *salivation* to follow the use of large doses of Helonin. In doses of from one to five grains, it produces an *irritability of the stomach and slight purging, with a burning sensation in the bowels, irritation of the urethra, pain in the kidneys*, which is followed by *albuminuria*, indicating congestion and large discharge of urine, with slightly increased specific gravity."

Dr. E. M. Hale says: "I have found it very useful in idiopathic diseases of the stomach, and especially in those sympathetic gastric disorders which accompany uterine and renal diseases. Loss of appetite, eructations, fullness, cramp, and painful congestion, with lowness of spirits, are the chief indications for its employment."

Kidneys.—One of the greatest fields of usefulness for this drug is in diseases of the urinary organs, the leading of which are *Bright's disease and diabetes*. Many physicians, especially the Eclectic, believe that Helonias, by its specific action upon the renal organs, causes great venous congestion, and absolute *albuminuria and diabetes*. It certainly has cured the above symptoms; but Dr. S. A. Jones could not detect either albumen or sugar, and has doubts about it causing these symptoms. In my

opinion, if the Doctor had taken larger doses and continued the experiment a little longer, he would have found an abundance of albumen. He says that the results of his research show "that the action of Helonias upon the kidney is purely functional. There is no evidence of any epithelial desquamation, or degeneration; and, as a renal remedy, it may be classed with Cantharides, but not with Arsenic or Phosphorus. This conclusion by no means negatives the possible usefulness of Helonias in cases of albuminous urine. Renal hyperæmia alone can give this condition. The urinary flux seems to have been that of venous hyperæmia; and, at the farthest, I should feel disposed to rely upon this remedy only in diabetes insipidus dependent upon congestion of the lower third of the medulla spinalis. In the Helonias diabetes, this defective glycoerypsis obtains, that sugar which should have been stored up in the liver cells, as a preparation for ultimate heat and force evolution, slips through this gland, escapes organic chemolysis; and, accumulating as a purposeless product, it blocks the by-ways of life, and yet again the unceasing vigilance and fidelity of the scavenger is shown by saccharine urine. This is the kind of diabetes in which the adoption of an animal diet, and the exclusion of all the starches, effects the most remarkable diminution in the quantity of sugar eliminated; and it is the only diabetes mellitus in which I believe Helonias will cure

"Helonias is a diuretic; and, when it is in full action, the kidneys have a *burning feeling*, and they ache; evidence, I take it, of venous congestion and retarded blood-flow; hence the urinary plus, and its use in Bright's disease in only the ante-desquamation stage."

Dr. Jones further says: "Helonias is one of the few agents which make an alkaline urine acid. Primarily, it increases the elimination of urea; and I believe the dilutions will cause a urea-minus; and the specific gravity is lowered."

Organs of Generation.—It seems to increase the glandular action of the testicles, ovaries, cervix uteri, vagina, and mammæ, as shown by the following symptoms given by Dr. Clark: "Pain in the lower part of the back, through the uterus, like inflammation, piercing, drawing; breasts swollen, nipples tender, can not bear the pressure of even an ordinary dress; and uterine hemorrhage was a prominent symptom of the proving."

This remedy for many years has had the reputation of a uterine tonic. Prof. Lee says: "Numerous trials have satisfied us that it has a specific action on the uterine organs,—an alleviat-

ing, regulating influence over their functions. Hence, in *amenorrhœa* marked by general atony, and an anæmic, torpid condition of the system, this plant does great service; giving tone to the digestive organs, favoring nutrition and sanguification, and promoting the secretions generally. Its influence as a uterine tonic in atonic, passive *menorrhagia*, imparting tonicity to the muscular fibers of the uterus, by stimulating the plexuses of organic nerves which supply the pelvic viscera, is well marked. *Leucorrhœa*, *dysmenorrhœa*, and a liability to *abortion* from *atony* of the pelvic organs, are also relieved in the same way."

Its great utility in sterility and impotence, indicates that this remedy acts powerfully upon the *ovaries* and *testicles*.

Blood.—Dr. Jones says: "I am disposed to think that the grand sphere of Helonias' action is to be found in the trophic nerves of the vegetative system; hence it acts upon the sluice-gates of nutrition. It is never a direct tissue-irritant, like Arsenic. Its mode of action can be best conceived by considering the difference between a gastritis produced by Belladonna and one brought on by Arsenic; the first is induced remotely through the circulation, the other directly in the tissues.

"In its action on the medulla spinalis, we have only congestion from vaso-motor paresis. It probably differs from Nux vomica in lacking the hemorrhage which attends that drug.

"In the nutrition-changes effected by it, I incline to the opinion that it influences blood-genesis. Its value in post-diphtheritic debility, anæmia, and chlorosis, hints that we shall probably be safe if we look in the direction of the red blood-corpuscles as the theater of its action.

"When we survey its whole field of action, we are led to conclude that its primary effects are upon the blood *quantitatively*, through the trophic nerves; that its secondary and lasting effects are upon the blood *qualitatively*, through nutrition change."

Therapeutic Individuality.

Sexual Organs, Female.—Anæmic, torpid condition of the system, with an atonic condition of the generative organs, especially in females.

Passive metrorrhagia or menorrhagia.

Amenorrhœa from anæmia and general atonic condition of the system.

"Abortion, when the slightest over-exertion or irritating emotion tends to cause loss of the fœtus."—Hale.

Sterility, or impotence, the sexual power is lost, with renal disease and a greatly debilitated constitution.

"In prolapsus, retroversion, and anteversion, it strengthens the uterine ligaments by invigorating the general system."—*W. H. Holcombe*.

"It has been found very beneficial in those pains in the back, with lameness, stiffness, and weight, which are found in renal and uterine diseases."—*Hale*.

Breasts swollen, nipples tender; can not bear the pressure of an ordinary dress during menstruation.

Prolapsus uteri, with a tendency to miscarriage.

Leucorrhœa, with general debility and anæmia.

"Pruritus vulvæ; intense irritation of the external labia, which are puffed, hot, red, itch and burn terribly."—*Hale*.

Kidneys.—"First stage of *diabetes insipidus*, and *nervosus* of women, with congestion of the lower third of the medulla spinalis."—*S. A. Jones*.

"Albuminuria, ante-desquamation stage, with burning aching in the lumbar spine; lowness of spirits; restlessness; frequent profuse perspiration; urine pale yellow, sp. g. 1.013, acid; gets up two or three times at night to urinate; debility; palpitation when going up stairs; poor appetite; sleep difficult and unrefreshing."—*S. A. Jones*.

"Much congestion of the kidneys, with albuminuria."—*Paine*.

"A sensation as if the kidneys were two bags of hot water."—*Jones*.

Great weariness, with copious acid urination.

Digestive Organs.—Loss of appetite; eructations; fullness, cramp, painful congestion; great lowness of spirits.

Obstinate vomiting in Bright's disease.

Sub-acute inflammation and vomiting in pregnancy.

Intense pain in the stomach, with burning pains; vomiting and salivation during pregnancy.

Occipital headache; throbbing in vertex, worse by stooping, attended by vertigo, and a state of anæmia.

Profound debility, which follows an attack of diphtheria.

Very hypochondriac; depressed and apprehensive; exceedingly depressed, with great weakness of memory, and general anæmia.

Dizziness; fretful; everything turns in a circle, from anæmia.

This remedy acts as a tonic very similar to Iron; there is not so much anæmia as found in Iron, but there is a general atonic

condition of the whole body, often associated with renal and uterine diseases.

Aggravation.—Afternoon and night; looking steadily at one point; moving suddenly; when one sits purposeless, then come the burning, aching pains.

Amelioration.—Moving about; headache is relieved when the attention is engaged; the pains vanish when he is engaged. The sense of profound debility is lost when exercising.

HEPAR SULPHURIS CALCAREUM.

Sulphide of Calcium.

Chemical preparation; finely pulverized Oyster Shells and chemically pure Flowers of Sulphur, equal parts, kept for ten minutes at a white heat. Triturations.

Antidotes.—Vegetable acids, Merc., Iod., Bell., SIL., Cham.

Through the great vegetative nervous system, Hepar sulphur has six special centers of action:

- I. GLANDULAR S. *Conges'n; Induration; Suppura'n; Acridity.*
- II. MUCOUS M. (EYES, LUNGS.) *Exudations; Leucorrhœa; Ulcerat.*
- III. SKIN. *Fissures and Unhealthy Ulcerations.*
- IV. BLOOD. *Excess of Fibrine; Pseudo-Membranes.*
- V. DIGESTIVE ORGANS. *Atony; Indigestion.*
- VI. VENOUS SYSTEM. *Capillary Congestion; Scrofulosis.*

Lymphatic Glandular System.—No remedy in the *Materia Medica* has such a powerful and specific action upon the lymphatic glandular system, to moderate and control diseases where suppuration is inevitable. Under its action, the slightest injury causes suppuration. Dr. H. Goullon says: "Coinciding, as a general thing, with the action of Sulphur, Hepar sulphur, on account of its combination with Lime, still more acts upon the lymphatic and glandular system, and especially moderates plasticity. Hence its curative action in pathological processes with pseudo-membranous deposits (croup). The secretions of the skin and mucous membranes are excited by it, as well as exudations of serous membranes more rapidly resorbed by it. Like *Sulphur*

itself, *Hepar sulphur* affects disturbances dependent upon prevailing venosity. All this insures it a prominent position among the antiscrofulosa; and it has shown its great utility in the following forms of scrofula-dyscrasia:

"1. In abscesses, the maturing and suppuration of which are hastened under its influence.

"2. In moist and wet tinea.

"3. In panarititia, in which *Hepar* in alternation with *Silicea* renders surgical interference superfluous.

"4. In inveterate glandular indurations, which are brought to suppuration or resorption by it.

"5. Its curative action is indubitable in scrofulous ophthalmia, in which it acts all the surer the more pure the habitus scrofulosus presents itself in totality, and in ophthalmia neonatorum.

"6. In scrofulous purulent otorrhœa.

"7. In angina membranacea, in croup, and pseudo-croup, *Hepar* soon changes the dry, harsh, and crowing cough into a loose one. We do not always succeed in this with *Spongia*, which is still more used in the treatment of croup. The torture of emetics is spared to children treated Homœopathically, on account of the certainty with which our remedies, among which *Hepar sulphur* belongs par excellence, bring about a crisis.

"8. Again, *Hepar* recommends itself in relapses of amygdalitis. We find a chronic enlargement of the tonsils as an unmistakable expression of existing scrofulosis. Every cold settles there. After *Belladonna*, the reduction of the tonsils, which have grown still larger, hesitates sometimes; then *Hepar* ought to be given.

"9. Against ulcerated corners of the mouth.

"10. In febrile, flowing coryza, when the flow becomes very easily arrested, especially in scrofulous and rachitic children; if hoarseness or a hollow, rough cough appears in addition, and in ozæna scrofulosa (Kafka).

"*Mercurius* is the remedy with which *Hepar sulphur* could be confounded most easily. *Mercurius*, within the domain of scrofulosis, has almost all the therapeutic virtues of *Hepar*. Hence, we shall have to fall back upon the total characteristics of both, in order not to commit any mistake. The affections cured by *Mercury* presuppose a greater participation of the organs connected with the production of bile than is the case with *Hepar*. The latter better corresponds and is more suitable to the infantile organism."

Dr. R. Hughes says: "The most important application of *Hepar* is its use in suppuration. The power of Mercury to induce suppuration and inflammation is well known; and its employment in inflammatory states of the organs it influences, when matter threatens to form, is as obvious as it is successful. *Hepar* acts similarly, but it goes farther; it will often check suppuration when impending; but, when it is inevitable, it has wonderful power in promoting it, and conducting it to a speedy termination. This has been the doctrine and practice of the Homœopathic school for many years; and testimony to its soundness has now been given by Dr. Ringer. He says: 'The value of the Sulphides in abscesses, boils, and scrofulous sores, on the suppurative process, is easily made manifest. Thus, when Sulphide of Potassium or Sodium is administered, a thin, watery, unhealthy discharge becomes at first more abundant, afterward diminishing, and throughout continues thicker and healthier, possessing, indeed, the characters of "laudable pus." The condition of the sore improves correspondingly, and its healing is promoted. The Sulphides appear often to arrest suppuration. The influence of this group is still more conspicuous after the formation of pus. They then considerably hasten maturation, while at the same time they diminish and circumscribe the inflammation. They promote the passage of the pus to the surface, and the evacuation of the abscess.'

Hepar is next to *Mercury* in its action on the liver. Dr. Bayes says: "Those chronic states of engorgement of the liver, inducing great abdominal distress from their interference with the return of blood through the *venæ portæ*, are greatly benefited by a course of *Hepar*. Hæmorrhoids arising from this source are readily cured by this medicine. The obstruction to the abdominal venous circulation often gives great distress to the patient, preventing the abdominal respiration, and, hence, inducing oppression of breathing. In other cases, it produces obstinate constipation, from a congested condition of the veins of the rectum."

Skin.—Its action upon the skin is to produce unhealthy suppuration; even slight injuries suppurate; cracking of the skin, hands and feet smart; deep fissures in the palms of the hands; ulcers bleed from the slightest touch.

Mucous Membranes.—Upon the mucous membrane of the eyes and air-passages, *Hepar* has a powerful action, producing congestion, inflammation, and suppuration, with copious mucous

discharges. In catarrhal strumous ophthalmia, in which the pustules and ulcers are situated on the cornea, and marked by great intensity of the symptoms, Dr. Allen says, no remedy is more frequently indicated than Hepar. In ulceration and inflammation of the lids and Meibomian glands, in scrofulous subjects, this remedy is of great utility.

Respiratory Organs.—In affections of the air-passages and lungs, *Hepar* is one of our most brilliant remedies. In bronchitis and croup, after the use of Aconite, Belladonna, and Spongia, when resolution has been initiated, and the breathing has a rattling, loose sound, no remedy can fill the place of *Hepar*; and the same in broncho-pneumonia or pneumonia, when the exudation, from excess of fibrine in the blood, has become purulent, where *Hepar* has saved many lives.

Digestive Organs.—Small doses stimulate the digestive organs, but large doses of the Sulphides act as an irritant, producing active inflammation, with all its symptoms.

Therapeutic Individuality.

Skin.—*Hepar* is adapted to scrofulous people, especially children, where there is more or less suppuration, and the slightest injury suppurates, and to all diseases where suppuration seems inevitable.

"Strumous enlargement of glands, especially where these can only be cured through suppuration, especially the tonsils."—*Hughes*.

"Suppuration of long-inflamed boils on the body, or limbs, commencing with blisters; every cut or hurt suppurates."—*Hg.*

"Slightest touch or pain in cutaneous eruptions, causes fainting."—*Dr. McGeorge*.

"Ulcers stinging, the edges of the ulcers burn, smell like old cheese; little pimples on smooth ulcers surround the painful ulceration."—*Hg.*

"Strumous suppuration of joints."—*Hempel*.

"Ulcers have a bloody suppuration; smelling like old cheese."—*G.*

Rhagades of the hands and feet, very sensitive.

"Eruptions on the bends of the elbows and knees."—*Hg.*

"Unhealthy, suppurating skin; even slight injuries maturate and suppurate."—*Hah.*

"Cracking of the skin and smarting of the hands and feet, with soreness and moisture between the scrotum and thigh."—*Hah.*

"Itching beneath the lower lip, which soon becomes covered with yellow blisters, which change to a scurf."—*Hah.*

The slightest touch causes ulcers to bleed.

For whitlow, no remedy equals *Hepar*. If given early, it will arrest it at once; if not, it will greatly hasten suppuration.

In General.—No remedy is better adapted to diseases in persons that have been injured by the abuse of Mercury.

Head.—Nightly pain in the skull bones, with falling-out of the hair after abuse of Mercury. Headache at the root of the nose, with nodosities.

"Constant pressive pain in one-half of the brain, as from a plug or nail."—*Hah.*

"Pressive pain externally in the right side of the occiput, which gradually extends to the nape of the neck, throat, and shoulder-blades."—*Hah.*

Headache, head sore as if beaten, worse mornings; motion, rising up, and moving the eyes, increase the pains.

"Vertigo when shaking the head, or from jarring, as, for example, from, riding in a wagon, so that on getting out one can not stand alone; sometimes with faintness."—*D.*

Starts up from sleep as if in a fright; suffocating.

"Profound sleep with head thrown back."—*E. A. Farrington.*

Very weak memory; low-spirited, and much irritability.

Falling-off of the hair from abuse of Mercury or from syphilis.

Eyes.—Acute phlegmonous inflammation of the lids, which tends toward suppuration; the lids are inflamed as if erysipelas had invaded them, with throbbing, aching, stinging pains; very sensitive to touch; aggravated by cold, relieved by warmth. *Hepar* is of great value."—*A. and N.*

"In the severe forms of strumous ophthalmia, in which the pustules and ulcers are situated on the cornea and marked by the intensity of the symptoms, there is probably no remedy more frequently indicated."—*A. and N.*

"Intense photophobia, profuse lachrymation, great redness of the cornea and conjunctiva, even to chemosis, and much pain of a throbbing, aching, shooting character, relieved by warmth; worse in draft of air and at night."—*A. and N.*

"Acute trachoma, pannus or keratitis, tending to ulceration, especially if the patient has taken too much Mercury. For the

absorption of pus in the anterior chamber (hypopyon), there is no better remedy than Hepar."—*A. and N.*

"Ulceration of external parts of the eye, which bleed easily and are very sensitive to touch, most positively indicates Hepar, especially if there is excessive photophobia."—*A. and N.*

"Eczema of the lids, in which thick, honey-comb scabs are found on and around the lids, with nightly agglutination of the lids, is especially cured by Hepar."—*A. and N.*

Ears.—Hardness of hearing, with whizzing and throbbing in the ears; discharge of acrid pus.

Darting pains in the ears, with cracking noises when blowing the nose, after scarlatina or abuse of Mercury.

Copious discharge of pus from the ears; chronic otitis, the discharge always produces excoriation.

Nose.—Sub-acute and chronic catarrh, with copious discharge of mucus, that is sometimes bloody, after abuse of Mercury.

Acute sensibility of the sense of smell; chronic catarrh.

Caries of the bones of the nose; they are very sensitive to the touch, with fetid discharges, from syphilis.

Yellow color of the face and skin, or very pale.

Mouth and Throat.—Lips ulcerated.

Teeth ache, very sensitive to pressure, gums red and swollen, aggravated in a warm room; gums bleed easily.

Hollow teeth feel too long, and are painful; ulcerated gums.

Putrid, bitter, metallic taste; breath fetid.

"Sensation as if there was a fish-bone in the throat."—*Hg.*

"Swollen tonsils and hard glandular swellings of neck."—*G.*

The feeling as if a sliver or fish-bone was in the throat when swallowing, or moving, is very characteristic.

"Feeling of internal swelling and pressure, as if a plug of mucus or some other body had stuck in the throat, and could not be swallowed away."—*D.*

"Scratching, scraped feeling in the throat, increased when swallowing solid food."—*D.*

"Constant desire to hawk out mucus, and much saliva from the mouth, like water-brash."—*D.*

In acute and sub-acute inflammation of the tonsil, it is of great value, if pus has commenced to form, or has formed.

"A feeling in the throat when swallowing as if he had to swallow over a swelling."—*Hah.*

Stomach.—Great desire for acids, especially vinegar.

"Rising in the œsophagus as if he had eaten sour food."—*G.*

"Stomach inclined to be out of order, longing for sour or strong-tasting things."—*G.*

"Empty, sinking feeling at the stomach; strong and comfortable feeling after eating."—*J. B. Bell.*

"Frequent desire to loosen the clothing about the stomach, particularly a few hours after eating."—*J. B. Bell.*

"Hot, sour regurgitation of food."—*J. B. Bell.*

"Eructations, with burning in throat, tasting like rotten eggs. Vomiting of bile, after long retching, especially mornings."—*Hah.*

Much distention of the stomach and abdomen, with gas; tearing pains in the umbilical region, with nausea.

Stools.—"Stools, light yellow, fæcal; thin or papæscient; undigested; whitish, sour-smelling, bloody mucous; painless."—*J. B. Bell.*

Green, slimy, sour diarrhœa in children, with excoriation of the anus.

Chronic diarrhœa, stools of mucus and pus, during the day, with many dyspeptic symptoms, especially if abused with Mercury.

"Obstinate constipation from a congested condition of the veins of the rectum."—*Bayes.*

Hæmorrhoids from portal congestion, with obstinate constipation and want of expulsive power.

"Urging to stool, but the large intestines are wanting in peristaltic action, and can not expel the fæces, which are not hard; only a portion of which can be forced out by the aid of the abdominal muscles."—*Hah.*

Urinary Organs.—"Micturition impeded; he is obliged to wait a while before the urine passes, and then it moves slowly; he is never able to finish urinating; it seems as though some urine always remains behind in the bladder."—*Hah.*

"Weakness of the bladder; the urine drops vertically down, and he is obliged to wait a while before any passes."—*Hah.*

"Acrid, burning urine, making the inner surface of the prepuce sore and ulcerated."—*Hah.*

"Pale, clear urine, which on standing becomes turbid and thick, and deposits a white sediment."—*Hah.*

Wetting the bed at night, from weakness of the bladder.

Chronic ulceration of the kidneys and bladder.

Sexual Organs, Male.—Increased sexual desire.

Mercurialized chancres; humid and excoriating; chronic.

Sexual Organs, Female.—Menses delayed and too scanty.

"Menorrhagia, in women with chapped skin and rhagades of the hands and feet."—*Hg.*

"Uterine ulcers, and bloody suppuration, smelling like old cheese, ulcers sensitive."—*Hg.*

Leucorrhœa, with smarting, itching, and burning of the vulva.

Ulceration of the mammæ, swollen and very sensitive; and night sweats. (Of great value in suppuration of the mammæ.)

Air-Passages.—Hoarseness, with aphonia.

"Laryngo-tracheal catarrh, either acute or chronic, with much hoarseness."—*Hg.*

"Rattling, choking cough, worse after midnight."—*G.*

"The child seems croupy, decidedly so, and the phlegm is loose and choking."—*G.*

"Croup, after dry, cold wind, with swelling below the larynx, with great sensitiveness to cold air or water."—*Hg.*

"Cough, with hoarseness all the time; worse before midnight, or toward morning."—*Hg.*

Croup excited when any part of the body gets cold, with loose, rattling cough, and great sensitiveness to cold air or water.

"Severe laryngeal catarrh, with roughness and pain in the throat, and sensation as of a clot of mucus in the throat when swallowing."—*Dr. Bayes.*

Whenever the slightest portion of the body becomes uncovered, it brings on paroxysms of coughing.

Suffocative cough from tightness of breath; asthma.

Chronic bronchitis, with tickling in the terminal ramifications of the air-passages; violent cough, with sensation as if hot water was trickling through the bronchia, expectorates bloody, frothy, tuberculous masses.

"When there is hoarseness, and soreness of the chest, and a cough moderately moist and then dry again."—*Holcombe.*

Dyspnœa very marked, with suffocative attacks.

Dr. Hirschel says: "Hepar suits those cases which are so far advanced by *Aconite*, *Bryonia*, *Bromine*, *Mercury*, *Iodine*, or *Spongia*, that they have passed into the stage of resolution. It is our most important remedy, where, in acute forms, this resolution has been prepared, or in moist coughs resting on a catarrhal or organic base, in the upper as well as in the lower respiratory

organs. In croup, as well as in pneumonia, it can only be indicated in the second stage. It suits tuberculosis far less than cheesy and chronic pneumonia; mucous rales are important indications for this remedy, as it acts on the plasticity [fibrine] of these processes."

"Rattling, choking cough; it seems as if the patient would choke in coughing; in croup, whooping-cough, or in catarrh; worse toward morning and after eating."—*G.*

"In sub-acute catarrhal processes, the fluid at that period is composed essentially of mucous cells, and contains but a small proportion of pus corpuscles; it is thus rendered particularly glutinous and sticky. Hence the violent and suffocative paroxysms of coughing, often attended by retching, which precede its expulsion."—*Dr. Meyhoffer.*

Can not bear to be uncovered, coughs when any part of the body is uncovered; he must be covered up to the face.

Chronic hepatization of the lungs, with constant tendency for the head and chest to perspire, especially in children.

Sweats day and night without relief, especially about the chest, with a sour smell; takes cold easily.

Skin.—"Unhealthy, suppurating skin, even slight injuries suppurate."—*Hah.*

"Cracking of the skin; soreness of hands and feet."—*Hah.*

Pustular eruptions, or afflicted with boils, that are very sensitive.

Yellow, jaundiced skin, from chronic hepatitis and ulceration.

Skin excessively sensitive to the open air; perspires at the least motion.

"Great sensitiveness of the skin to the touch, and to the slightest cold."—*Fischer.*

Clammy, sour night sweats, worse about the chest; sweats day and night without relief.

Ulcers discharge bloody pus, smelling like old cheese; edges very sensitive, and have a pulsating sensation; discharge corroding.

Fever.—Chilliness predominates, with great sensitiveness to the open air; sweats from slight motion.

Great chilliness in the open air, the patient perspires so much.

"Chill from 4 to 8 p. m., or in the night, aggravating all complaints."—*Farrington.*

"Dry, burning heat, redness of the face, and violent thirst all night; flushes with sweat; worse from uncovering."—*E. A. Farrington.*

Sweats day and night without relief; hectic fever.

Sequelæ of scarlatina; swelling and suppuration of glands, albuminuria, with dropsy; bloated face; convulsions; or for subsequent crops of boils. Kafka has had most wonderful results from Hepar 2d or 3d in the sequelæ of scarlatina, especially the dropsy.

Suppurating stage of variola, with much sweating.

"Palpitation of the heart, with a feeling of debility about the heart and left chest, worse in cold air."—*E. A. Farrington.*

"Anxious feeling about the heart, with palpitation in cases of hypertrophy."—*R. Koch, M. D.*

"Orgasm of blood; throbbing of blood-vessels; congestions following exposure to dry, cold air."—*E. A. Farrington.*

Fever from suppurating glands, with hard, burning nodosities; burning, itching nettle-rash.

Back and Limbs—Symptoms of the back worse from contact; bruised feeling as if a boil was forming.

Great weakness of the spine; caries of bones.

"Stitches in the joints during repose and motion."—*D.*

Drawing pains in the limbs, hands and feet crack and ulcerate.

Great lassitude; fainting from slight pain.

Soles of the feet sore when walking; soles of the feet burn, must uncover them. (Like Sulphur.)

Strumous ulceration of joints, with long-continued or retarded suppuration; with glandular suppuration or induration.

Coldness of the feet, in chronic suppurations.

Hydrargyrosis.—The best known antidote to Mercury.

Aggravation.—At night, from cold north or east winds; from eating anything cold; uncovering any part of the body, from open air, and motion.

Amelioration.—Relieved from warmth in general; warm air and in warm, wet weather; from binding the head tight, and mornings.

HYDRASTIS CANADENSIS.

Golden Seal.

Habitat: America, etc. Tincture of the fresh root, Class III.

Through the organic nervous system, Hydrastis has three special centers of action:

- I. MUCOUS M. *Copious Stringy Mucorrhœa; Ulceration.*
- II. DIGESTIVE O. *Tonic; Increased Secretions; Constipation.*
- III. GLANDULAR SYSTEM. (LYMPHATICS.) *Perverted Secretions.*

Mucous Membranes.—Through the ganglionic nervous system, Hydrastis acts upon all the mucous membranes of the body, affecting more especially those of the outlets of the body; as the eyes, nose, *mouth*, throat, *rectum*, vagina, uterine cervix, and urinary organs, increasing their secretions to an abnormal quantity. At first the secretion is clear, white, transparent, and tenacious; it soon becomes yellow, thick, green, and sometimes even bloody, and very *tenacious*, so that it can be drawn out into long strings, like Kali bichromicum.

Dr. E. M. Hale says: "Its general primary effects on the system when taken in medicinal quantities by a healthy person, will undoubtedly be those of a *nutrient tonic*; i. e., it stimulates the digestive processes, and increases the assimilation of food. By these means the blood is enriched, and this blood feeds the *muscular* system. I mention the muscular system because I believe it first feels the increased power imparted by the stimulation of increased nutrition. The consequent improvement on the nervous and glandular systems is a natural result.

"Its action on the *mucous surfaces* is of a similar character. The natural secretion is first increased; then it becomes abnormal in quantity and quality. At first clear, white, transparent, and tenacious, it becomes yellow, or thick green, and even bloody, and nearly always *tenacious*. The tenacity of the discharge, allowing it to be drawn out into strings, is analogous to the discharge caused by Kali bichromicum, Ammonium bromidum, and Cubebs. It differs from the profuse mucous flux of Stannum, Copaiba, and Ammonium muriaticum, which is thick and lumpy, and falls in

masses. The primary mucous flux of Hydrastis passes from simple increase of mucus to erosion and ulceration. Its secondary effects are exhaustion or destruction of the glandular sources of the mucus,—a condition in which the mucous surface is dry, and glazed, and its function destroyed. A muco-purulent, or purely purulent, discharge marks the ultimate primary action of Hydrastis. A total arrest of secretion from mucous membranes marks its ultimate secondary effects."

Acting on the bowels, large doses produce mushy, papescent stools, with colicky pain in umbilical region, and a *gone, faintish feeling in the epigastrium*, probably from its direct and specific action upon the *solar plexus*. In my proving of the remedy, this *gone, faint* feeling was one of the most prominent symptoms of the drug.

Glandular System.—Hydrastis not only acts upon the gastric and intestinal glands, but also affects the larger glands, as the liver, salivary, and lymphatics, producing increased secretions. It is probably through its action on the lymphatic glandular system that this remedy has cured cancer; but its reputation for curing cancer has been thrown into the shade of late, clinical experience showing that it is useless, without it is in some cases of scirrhus of the breast, where it has proved to be of great value, actually curing many cases. Dr. Hale cites one case of scirrhus of the stomach where its action was most wonderful.

Therapeutic Individuality.

Mouth.—"Tongue large, flabby, and slimy-looking; the coating is a yellow, slimy, sticky fur."—*Dr. Clifton*.

In stomatitis, with ulceration of the buccal mucous membrane, the Muriate of Hydrastia applied locally and given internally is about specific.

Dr. Hale says: "Many physicians use it in all forms of *stomatitis* of children; in simple ulceration of the buccal mucous membrane, in Mercurial sore mouth, and in *stomatitis materna*. I have witnessed the most obstinate varieties of these affections yield to the local application of Hydrastis in decoction or powder, after the mineral acids, astringents, and Nitrate of Silver had been tried in vain." [Use one grain of the Muriate of Hydrastia to an ounce of water, and apply frequently; or, use the Glycerole.]

Dr. Lodge has had fine results from Hydrastis in Mercurial salivation, using it locally and internally.

Stomach.—In gastric disorders, hundreds of physicians have found this remedy of great value. Dr. King says: "It is successfully administered in dyspepsia and chronic affections of the mucous coats of the stomach. In chronic inflammation of the stomach it is very valuable. It will be found of special advantage in the treatment of persons who are intemperate, gradually removing the abnormal condition, and in many cases destroying the appetite for liquor." Dr. Scudder says: "In anorexia, indigestion, and general debility, arising from a languid or atonic state of the stomach, it is unsurpassed, restoring tone to the stomach, promoting the appetite, and acting as a general restorative. It may also be employed in those cases of chronic gastritis and chronic irritation of the stomach with altered secretion, which constitute the worst and most persistent forms of dyspepsia. In those sympathetic diseases of the digestive organs arising from uterine disease, we have obtained more benefit from this than from any other agent. The cases in which this plant is used with the most success, are atonic dyspepsia, attended with torpidity of the liver, languid circulation, and constipated bowels."

Dr. Hale says: "I have used this medicine in gastric disorders, for many years; and my experience, together with a knowledge of its general effects, led me to consider it homœopathic to the following conditions: 1. Mucous flux (chronic). 2. Excess of epithelium (chronic). 3. The anæmic state. 4. Chronic inflammation (mucous). 5. Ulcer of the stomach. 6. Deficiency of gastric juice."

"Bad appetite; the power of digesting bread and vegetables, being especially weak, with sour eructations, and a sodden-looking facial expression."—*Dr. Clifton.*

Dull aching pains in the stomach, which cause a very weak, faint feeling; from portal congestion.

"There is in the stomach a sensation of weight like a stone, with fullness, and an empty, aching, gone feeling, with sour eructations."—*Dr. Clifton.*

Intestinal Canal.—Mucous diarrhœa, or light-yellow, papescent stools.

Goneness in the epigastrium; acidity and constipation; after stool for hours, severe pain in the rectum and anus.

No remedy will be found more useful in chronic constipation. Dr. Hastings reported many cases cured by its use in drop doses of the tincture.

Dr. Hughes says: "My chief experience with Hydrastis has been in the treatment of constipation; for which it is a precious

remedy, far superior to *Nux vomica*, usually prescribed. It is in the cases where constipation stands alone, or is itself the cause of the other existing ailments, that I find the *Hydrastis* so valuable. I have used it in the potencies, from the first to the sixth decimal; but the second has seemed to me the most satisfactory."

Dr. Massy says: "In all the cases reported, as well as in the cases wherein I have found it successful, the constipation was of long standing, had been aggravated by cathartic medicines; the patients were weak and enfeebled; the complexion sallow; the tongue foul; pain in the lower bowels and rectum; indigestion; stools hard and nodulated. The best results have been obtained from the tincture, 1st and 2d dilutions, repeated two or three times a day." [I give two drops of the tincture morning and night, in water, with complete satisfaction.]

"In excoriations of the anus and ulcerations of the rectum, or fissure, the local application of *Hydrastis* acts promptly."

Dr. Albertson has cured a number of cases of jaundice with *Hydrastis*; the skin and eyes dark green yellow color; urine very dark; feces light colored, and great debility.

Catarrhal inflammation of the bile-duct or duodenum.

Sexual Organs, Male.—Gleet, with debility; copious discharge, painless. (Use the infusion by injection.)

Inflammation and ulceration of bladder. (Inject infusion.)

Sexual Organs, Female.—Uterine catarrh, endometritis, with muco-purulent, stringy discharge, and great debility. (Locally and internally.)

For epithelial abrasions of cervix, os, and vagina, apply locally, one ounce in hot water, one gallon at a time, or with cotton tampon.

Pruritus vulvæ, with erotic furor. (Muriate Glycerole locally.)

Respiratory Organs.—Nasal catarrh; discharge of thick white mucus, with coryza and headache.

Copious discharge of thin, watery mucus; soreness of nostrils.

Stuffed, choked condition of the air-passages.

Bronchitis in old, exhausted people, with thick, yellow, tenacious, stringy sputa, and loss of appetite.

"Palpitation of the heart, with heavy, dull, hard thumping, fullness of chest and dyspnoea, with dyspepsia."—*R. C. Smedley*.

Cough, with expectoration of thick, yellow, very tenacious mucus. Stringy and profuse, in chronic bronchitis.

Skin.—Erysipeloid rash, covering face, neck, palms of the hands, and joints. (Glycerole locally.)

"For cracks, fissures, and abrasions of the nipples, use the *Glycerole Muriate*. Rodent ulcers, the face of a dingy, reddish-yellow color, dry, glazed, and free from granulations, with slight discharge."—*Phillips*.

"Small-pox; great swelling; redness and itching; throat very sore."—*Hale*.

"Early stages of cancer, and chiefly where the location is in a gland, or in the immediate vicinity."—*Dr. Bayes*.

Dr. E. J. Blake has witnessed rapid disappearance of epithelial lip-cancer, with *Hydrastis*, locally and internally.

Dull, heavy, dragging pain, and stiffness of the small of the back, particularly across the lumbar region.

HYOSCYAMUS NIGER.

Hen-bane.

Habitat: Europe, Asia, America, etc. Tincture of green, flowering plant. Class I.

Antidotes.—Bell., Op., Camph., Coc., Coff., Nux vom., Arn., Cham.

Through the cerebro-spinal nervous system, *Hyoscyamus* has nine special centers of action:

- I. BRAIN. *Violent, Loquacious, Quarrelsome Delir.; Insom.*
- II. CORD. (MOTOR TRACT.) *Convulsions; Paralysis.*
- III. EYES. *Powerful Mydriatic.*
- IV. EARS. *Paresis of the Auditory Nerve; Deafness.*
- V. DIGESTIVE ORGANS. *Paralysis of all Sphincter Muscles.*
- VI. INTESTINES. *Involuntary Diarrhoea.*
- VII. URINARY ORGANS. *Diuresis; Sphincter Paralysis.*
- VIII. CIRCULATION. *Slowed, with Increased Blood-Pressure*
- IX. TEMPERATURE. (1) *Increased;* (2) *Diminished.*

Brain.—The action of this cerebro-stimulant in many respects resembles that of *Belladonna* and *Datura*; indeed, their action is so similar that such men as Bartholow, M. M. Oulmont, Laurent,

and many others, write them up together; but a close study of their effects shows each one, when taken as a whole, has a decided action peculiar to itself, and occupies in therapeutics a distinct individuality.

Large doses of Hyoscyamus, in man, produce "delirium resembling that of drunkenness,—a garrulous delirium, with proneness to altercation and quarrelsomeness. Hence one of the ancient names, *Altercum*. Its power to produce an excited, quarrelsome, or fantastic mania, is universally conceded."—*Dunham*.

"Fullness and heat of the head, flushing of the face, injection of the eyes, and cerebral excitement, manifested by indistinct or clouded vision, and sometimes total blindness; giddiness, delirium, and hallucination; sometimes natural objects assume a grotesque appearance, or the field of vision is filled by luminous figures. There is little or no inclination to sound sleep, but a sort of somnolence, with incoherent muttering, like that which is so common in typhoid fever. One-twelfth of a grain of Hyoscyamia produces wakeful, quiet, usually pleasing delirium, with illusions of sight; or with such excessive somnolence that the patient can not keep the eyelids raised for a few seconds, but, when aroused, lapses again into a dreamy sleep, broken by occasional mutterings, and slight jerking of the limbs. In either case, the power of maintaining the erect posture will be lost, and at best the patient reels like a drunken man."—*Stille*.

By its action "on the sensorium it produces perversion of perception, so that illusions perplex the patient; he sees things which have no existence; also perversion of intellectual action; he reasons erroneously. A distinct mania of the quarrelsome or obscene character. The patient would escape, or would be undressed and walk about nude, or use offensive or unbecoming language and gestures; or quarrel with bystanders."—*Dr. C. Dunham*.

Sleep.—At first, under small doses, an unwonted liveliness, and difficulty in getting asleep; sleeplessness and frequent waking, with exaltation of mind and vivid imaginings. Even when it occurs, the sleep is very unquiet, the limbs twitch or are contorted into various grotesque shapes, the hands clutch at the bedclothes, or grope about here and there; there are convulsive twitches, starting up in a fright, grinding of the teeth, groaning and starting in sleep.

The peculiarities of Hyoscyamus may be noted as follows: "First, the convulsions, the mania, the delirium, the cough, the

sleeplessness, all occur almost absolutely without any manifestations of fever. In this respect, it presents a marked contrast to *Belladonna*.

"Second. The singular and definite character of the mania, which is loquacious and quarrelsome, the subject often being especially inclined to unseemly and immoderate acts, gestures, or expressions."—*Dunham*.

Eyes.—The action of this drug upon the eyes, is marked and powerful, "especially on the pupils, which it dilates more rapidly, more completely, and for a longer period, than *Atropine*. The sight is impaired for many days, objects appear scarlet, and filled with luminous figures. In some cases, the clouded vision passes into total blindness, and the conjunctiva becomes injected. In some, the letters seem to be running about the page." *Stille* says, that, as a means of dilating the pupil, *Hyoscyamia* is superior to all other agents; and *Schroff* asserts that *Hyoscyamia* is decidedly more powerful than *Atropia* as a mydriatic, as concerns its local action on the pupil. Spasms of the muscles of the eye are also a prominent effect of *Hyoscyamus*.

Ears.—In some cases the hearing is entirely lost, probably from paresis of the auditory nerve.

Digestive Organs.—The action of this remedy upon the throat is identical with that of *Atropine*, only not quite so powerful. If one twenty-fourth to one thirtieth of a grain is injected under the skin, in from ten to twenty minutes the tongue grows more or less completely dry, rough, and brown; the hard and soft palate dry and glazed. The dryness of the throat renders swallowing almost impossible; the voice becomes hoarse and husky.

Inflammation and even gangrene of the stomach have been produced. Large doses produce griping pains and diarrhoea; the stools occur at night, and are involuntary during sleep, from inertia of the sphincter ani.

Hyoscyamus produces paralysis of the sphincters of the anus and bladder, but not in such a marked degree as does *Atropia*. It hardly ever produces constipation.

Kidneys.—The diuretic action of this drug is marked, and it is eliminated so copiously that the urine possesses the virtues of the remedy so strong that it has the power of dilating the pupil. The bladder is often paralyzed, so that urine accumulates, and the patient is unable to expel it, or is unconscious of its presence.

Respiratory Organs.—Through the vagi, the secretions are dried, producing a dry, nervous, spasmodic cough, aggravated at night, relieved by sitting up. In Belladonna, the patient is compelled to sit up; but it does not relieve the cough.

Scroff found that Hyoscyamus paralyzed the extremities of the vagus, retarding the respiration, and aphonia is often produced.

Muscles.—Dr. Dunham says: "It paralyzes and convulses the voluntary muscular system, e. g., the extremities, and paralyzes the involuntary system; produces convulsions and paralysis (with pale face, quiet pulse, nervousness); as, for example, paralysis of the constrictors of the pharynx and sphincter ani. . . . The spasmodic affections may be either *subsultus* tendinum of a single extremity, or general epileptic convulsions; the limbs are forcibly curved, and the body is thrown up from the bed; the patient then falls with a cry, in general convulsions. It resembles, and is useful in, convulsions from intestinal worms, and especially in puerperal convulsions."

Circulation.—"Hyoscyamia, in doses of 1-40 grain, will cause the pulse rate to fall from 80 to 50; and doses of 1-10 grain will primarily accelerate the pulse by six or twenty beats and for the period of about an hour, after which it slowly declines, but gains in force and volume."—*Dr. Harley.*

"In the elaborate research of Laurent, it was found that the capillaries of the frog's web contracted after the local application of Hyoscyamia, even when the nerves had been previously severed, and also after the hypodermic use of the poison; but small doses augmented both the pulse rate and the arterial tension, while large doses increased the former and diminished the latter. The direct application of the Alkaloid to the heart produced a rapid diminution of the number of its beats."—*Wood.*

Temperature.—Small doses slightly increase the temperature; and large doses diminish the central temperature.

A singular peculiarity of the drug is that children have to take very large doses to have it affect them, while old people are rapidly and readily influenced by the remedy.

Therapeutic Individuality.

Head and Mind.—Too active condition of the sensorial functions, with great nervous excitability.

"Involuntary, loud laughter, with silly actions, and convulsive trembling."—*G.*

Sleeplessness from renal affections; very excitable.

"Delirium, with jerking of the limbs, and diarrhœa, red face, wild, staring look, and throbbing of the carotids."—*G.*

"Lascivious furor, without modesty; she wishes to uncover and expose herself."—*G.* [Puerperal insanity.]

"Wishes to run away for fear of being hurt."—*G.*

"Entire loss of consciousness; sees persons who are not, and have not been, present."—*G.*

"Muttering, and picking at the bedclothes."—*G.*

"He lies in bed nude and chatters; he walks about insane, naked, wrapped in a skin during the summer heat. The character of the mental affection is one which is prevalent in puerperal mania, or in mania relating to, or in any way depending on, functional or organic maladies of the sexual organs of women. The non-congestive or non-inflammatory forms of puerperal mania have been fully recognized and established in clinical experience."—*D.*

"Sleeplessness or dozing, with the brain full of ideas, figures, and bewildering images."—*D.*

"The vertigo of *Hyoscyamus* is attended by obscuration of vision, and loss of general sensibility of the external surface of the body."—*D.*

The pains are mostly felt in the forehead.

Eyes.—Objects appear red and too large.

Spasmodic action of the internal rectus.

Twitching in the eyes; dim vision, as if a veil before the eyes.

When reading, the letters move about, from mydriasis.

"Excessive dilatation of the pupils, with complete loss of sensibility to touch."—*D.*

Loss of both sight and hearing; night blindness.

"The eyes become short-sighted; distorted, stare and protrude."—*D.*

Small objects seem very large.

Hyoscyamus has proved an excellent remedy for squinting, double vision, and convergent squint of the right eye.

"Eyes red, sparkling, staring; rolling about in orbits; tearing beating in right eye; seem projected and watery."—*Hg.*

"Spasmodic closing of eyelids; can not open the lids."—*Hg.*

Several cases of hemeralopia have been cured by this remedy.

Distorted face, *risus sardonicus*; flushed, excited countenance.

Digestive Organs.—Tongue dry, red, brown, cracked, and tremulous.

Tongue dry and paralyzed.

Soft and hard palate both dry and glazed.

Fauces and throat deep red and dry, impossible to swallow.

"Dryness of throat; inability to swallow liquids."—*Dr. Hill*.

Speech impaired, difficult, and unintelligible, from arrest of secretion. Spasms of the throat, with very great difficulty in swallowing.

"Violent pain in the stomach, with vomiting and hiccough."
—*Raue*.

Nausea and vomiting, with hiccough, and spasm of the œsophagus. Much thirst, with tenderness of the stomach.

Painless yellow, watery, involuntary diarrhœa. In typhoid states, the watery stools are passed unconsciously; the patient desires to uncover, or remain naked.

Much distention of the abdomen, in nervous fevers.

Involuntary stools during sleep at night, from paralysis of the sphincter.

Urinary Organs.—Paralysis of the sphincter vesicæ and ani, with involuntary stool and urine.

Involuntary micturition from paralysis of sphincter vesicæ.

Great difficulty in voiding urine; can not without pressing.

Sexual Organs, Female.—"Excited sexual desire, without excitement of the fancy."—*G*.

"Loud laughter at the approach of the menses, with convulsive trembling."—*G*.

Hysterical spasms before the menses, with convulsive trembling during the menses, insomnia.

"Labor-like pains previous to menstruation, in the uterus, with drawing in the loins and small of the back."—*Hah*.

Profuse menstruation, with trembling of the extremities.

Spasms during parturition, with much nervous excitability

Nymphomania, with tendency to expose the person.

Puerperal mania, with desire to be uncovered and nude.

"Hysterical females and young girls whose bowels are apt to bloat and who are subject to attacks of diarrhœa, with colicky pains and frequent urging to stool, or where the sphincters are weak, causing great difficulty in retaining the fæces, and where the least excitement or mental trouble produces the attack."—*Hempel*.

Air-Passages.—"Spasmodic dry cough, always worse by lying down, relieved by sitting up."—*G.*

"Nocturnal spasmodic dry cough, excited by a recumbent posture, and abating immediately after the vertical posture is resumed. (Specific.)"—*Baehr.*

This is a most valuable remedy in incessant, dry, spasmodic cough; with tickling in the throat, aggravated at night, in cold air, from eating or drinking, and especially by lying down; relieved by sitting up.

Hoarseness, with dry and inflamed throat; hysteria.

Skin.—Skin of a bright red hue, resembling scarlet fever, with dry, sore throat, and much nervousness.

Hot, dry, brittle skin, with want of sensation.

Fever.—Hyoscyamus is indicated in those fevers in which torpor of the entire organism predominates.

The patients have a dull, fixed expression of face; delirium is lacking; or, if present, it consists of a confused farrago of complex images; the perceptive faculty is almost suspended."—*Wurmb.*

Chill from feet upward, with much shaking.

"Whole body cold, with hot face."—*Hg.*

Much heat of body in skin disease and typhoid states.

Extremities.—Cramps and spasms of the extremities.

Spasms flex the limbs, and the body is tossed upward.

Many convulsive movements, or severe convulsions.

Muscular twitching; subsultus tendinum.

Great weakness of the legs; staggering gait.

In walking, the toes contract spasmodically.

Convulsions of children; from fright, or after eating.

Spasms of various kinds involving the voluntary muscles.

"The convulsions differ from those for which Belladonna is indicated, in this particular, that they are neither preceded, accompanied, nor followed by symptoms of cerebral congestion, or of great energy of arterial action, as is the case with Belladonna convulsions. Indeed, the absence of all such signs is remarkable under Hyoscyamus. Now, of all convulsions that could exist without these symptoms, none are so probable as convulsions from the irritation of intestinal worms, labor, or the puerperal state."—*D.*

All convulsions, where the muscles twitch from the eyes to the toes.

Aggravation.—Evenings and night; cold air; menstruation; mental affections, jealousy, and unhappy love.

Amelioration.—On stooping; during the day; and the cough from rising and sitting up.

HYPERICUM PERFORATUM.

St. John's Wort.

Habitat: Europe, etc. Tincture of the fresh, blooming plant. Class III.

Through the cerebro-spinal nervous system, Hypericum has two special centers of action:

- I. VENOUS SYSTEM. *Capillary Paralysis; Congestion.*
- II. JOINTS. *Rheumatoid Inflammation.*

Cerebro-Spinal System.—Through the sentient nervous system, Hypericum acts upon the radicles of the veins. From Dr. Muller's proving, we learn that it is capable of producing a good deal of vascular erethism and congestion of the brain. It seems to have a specific action upon the spinal nervous system. And it is useful when the spinal cord has been injured. It has proved itself as much a specific in injuries of the nervous system, as Arnica has in injuries of the muscular system. It also seems to have a diuretic action upon the kidneys.

Therapeutic Individuality.

Especially adapted to mechanical injuries of the spinal cord, and the nerves at their peripheral extremities. (Given internally and applied locally.)

"Mechanical injuries, wounds by nails or splinters in the feet; needles under the nails, squeezing or hammering of the toes and fingers, especially the tips of the fingers; when the nerves have been lacerated, wounded, or torn, with excruciating pains. It

prevents lock-jaw from wounds in the soles of the feet, or of the fingers, and palms of the hands."—*Dr. Franklin.*

Injuries of the nerves, attended with great pain. (It should be used locally as well as internally.)

"Next to the nervous system, the joints are affected; all the articulations feel bruised."—*Hg.*

IGNATIA AMARA.

St. Ignatius' Bean.

Habitat: East India, etc. Tincture of finely powdered seed, Class IV.

Antidotes.—Camph., Cocc., Coff., Nux vom., Arn., Cham., Puls., Zinc.

Through the cerebro-spinal (especially spinal) nervous system, Ignatia has seven special centers of action:

- I. CORD. *Hyperæsthesia; Spasms; Paralysis.*
- II. EYES. *Hysterical Asthenopia.*
- III. THROAT. *Globus.*
- IV. STOMACH. *Atony; Goneness, or Great Emptiness.*
- V. INTESTINES. *Diarrhœa; Prolapsus Ani.*
- VI. KIDNEYS. *Nervous Diuresis.*
- VII. GENERATIVE O., WOMEN. *Copious Menstruation; Hysteria.*

Spinal Cord.—Marey and Hunt say: "Its specific sphere is the spine, from which all the symptoms proceed. It produces nervous diseases, and especially clonic spasms; over-excitement of the spinal nervous system, giving rise to nervous symptoms."

It has a special action upon the medulla oblongata and spinal cord, producing tetanic convulsions, dyspnœa, asphyxia, and death.

Dr. R. Hughes says: "Ignatia exalts the impressionability of the incident nerves all over the body. We have, hence, pains and other morbid sensations well-nigh everywhere; increased susceptibility of the special senses; emotional sensitiveness; and, probably from reflex excitation, twitchings, constrictions, and spasms. This action of the drug is not deep and lasting. An

alternating series of symptoms—numbness, torpor, depression—soon appears, which are themselves as superficial as their predecessors. The febrile symptoms have the same characteristics.”

Dr. C. Dunham says: “Ignatia acts less than Nux vomica upon the organic substance of the body, producing appreciable changes in the tissues, and much more exclusively upon the vital power. Upon the vital power, its action is not so much exalting or depressing,—although in certain organs each of these varieties of action is distinguishable,—but rather disturbing, destroying the harmony of action between different portions of the organism, preventing the co-ordination of functions. Thus, where we find heat of the body, and should anticipate such a condition of the nervous system as would make cool air agreeable, the contrary condition obtains; where we should, from the fever existing, expect thirst, we find none, and *vice versa*. The great sensitiveness of the surface, instead of being aggravated by contact and by pressure, is relieved by it, etc., etc. . . .

“And yet, singular as this state of things is, it finds its analogy in the natural history of disease. For, if you analyze the phenomena of hysteria, you will find this ‘perversion of co-ordination of functions’ to be the fundamental principle of the malady; and, of all our remedies, none so completely corresponds to hysteria, and so often cures it, as Ignatia.

“In the words of Dr. Wurmb, the whole character of Ignatia may be expressed in two words: ‘*Entgegengesetzte Nebenbeschwerden*,’—Accessory or concomitant phenomena which are contradictory to, or inconsistent with, each other.”

Therapeutic Individuality.

Mind.—The patient is full of grief; frequent involuntary sighing, with a sensation of goneness or emptiness in the pit of the stomach; full of hysteria.

“Strongly inclined to solitude, and to be very secretive and passive.”—*G.* [Hysterical females.]

“Full of grief; with a weak, empty feeling at the pit of the stomach, which is not relieved by eating, with much sadness and sighing.”—*G.*

“Mental symptoms change often from joy to sadness.”—*G.*

“The patient is sensitive, peevish, excitable, hysterical, with sanguine nervous temperament; is delicate; falls easily in love; is romantic; bears trials meekly, and readily falls into clonic spasms after mental agitation.”—*Marcy and Hunt.*

Silent grief, combined with mortification, suppressed vexation; fretfulness of temper with timidity, or spasmodic laughter from grief.

"Disappointed affection, with silent grief constantly preying upon the mind, or fright, followed by sadness or grief. Sleeplessness, caused by dejection and grief."—*Marcy and Hunt*.

Excessive convulsive yawning, with stiffness or pain in the nape of the neck, with a feeling as if being swung to and fro.

"When the bad effects of anger, of grief, and of sudden mental shocks, produce still grief, or a disposition to brood over sorrow instead of giving way."—*D*.

"The symptoms of the mind are most important. Anxiety as though something terrible had happened; he can not speak because of it; hurry, fearfulness, terror, alternating with irresolution and inertness."—*D*.

Head.—"Headache, as if a nail were driven out through the side, relieved by lying on it."—*Hah*.

"Nervous headache when the eyes are involved; more generally one eye, with burning lachrymation; pressure in the eye from within outward."—*Hempel*.

"Throbbing pain in the occiput; worse from pressing at stool, from smoking, or the smell of tobacco smoke."—*Rauc*.

"One of the chief symptoms is weight at the back of the head, and a tendency of the head to incline backward against the back of a chair, probably from congestion of the cerebellum."—*Bayes*.

"Ignatia headache is met with in highly nervous and sensitive temperaments, or in those whose nervous system has given way to anxiety, grief, or mental work; is periodical; generally begins in the region of the ear and mastoid process, and runs up to the parietal bone, or back to the occiput, leaving a stiffness in the nape of the neck; is often deep seated in the eyeball; increases gradually in severity, and then suddenly abates, with a profuse flow of pale, limpid urine. Relieved by warmth, rest, and stimulants; aggravated by cold winds, motion, noise and light."—*Dr. Shulldham*.

Eyes.—Asthenopia and amblyopia in females, due to onanism or ciliary neuralgia; in hysterical subjects.

Sometimes photophobia is intense but fitful.

"Pain extending from the head into the left eye, which makes it burn and water."—*Joerg*.

Mouth and Throat.—"Odontalgia as if the teeth were crushed into fragments."—*Hempel*.

"Burning pain in the front teeth; teeth all sore; worse after drinking coffee, after smoking, after dinner, in the evening, and when lying down."—*Hg.*

"In talking or chewing, bite themselves in the cheek."—*Hg.*

The mouth is full of mucus and very sour.

Mouth constantly tastes sour.

"Sensation in the throat as if there were a large morsel of food or a plug sticking there; felt more when not swallowing than when swallowing."—*Hah.*

Constant feeling in the throat of a large lump that can not be swallowed, or as if a bone had lodged there.

Gastro-Intestinal Canal.—"Feeling of emptiness or gone-ness in the stomach, with a sensation as if a number of pins were sticking in it; not relieved by eating."—*Hempel.*

Sensation as if the stomach was shortened.

"Sensation in the stomach as if one had been fasting too long; as if the stomach was empty, with flat taste and languor."—*Hempel.*

"Gastralgia, with sticking pains, brought on by starvation, care, and grief."—*Hartman.*

"Excessive flatulence."—*Hughes.* [Hysterical females.]

"The gastric sphere of Ignatia is want of tone in the great sympathetic system, as shown by the 'feeling of weakness in the epigastrium, and pain as if strained,' with great depression."—*Bayes.*

"Feeling of flabbiness in the stomach."—*Hah.*

"The symptoms that particularly indicate *Ignatia* in gastralgia are periodical attacks of cramps of the stomach, coming on usually at night, or after eating; aggravated by the slightest contact, mitigated by change of position."—*Joussel*

"Great distention of the hypochondria, especially in the sides, pit of the stomach, and small of the back; so full she could hardly breathe."—*Helbig.*

"The stool is but little affected. There is a tendency to frequent but scanty stool, as in *Nux vomica*; but *Ignatia* acts less on the substance of the rectum and more on its nerves. Thus, in the rectum we have a distressing contraction of the sphincter, most painful after stool, and when walking or standing, relieved by sitting."—*D.*

"Moderate pressure at stool causes prolapsus ani, and stabbing, stitching pains from the anus upward."—*D.*

Coarse stitches, and spasmodic tension the whole day in the rectum; hæmorrhoids; prolapsus ani.

Bowels inclined to be loose, with stabbing pains in the rectum.

"Hæmorrhoids; the tumors prolapse with every stool, and have to be replaced; they are sore as if excoriated, both hemorrhage and pain are worse when the stool is loose; dragging pains around the pelvis."—*D.*

"Piles, attended with pains shooting deep into the rectum, seemingly up into the abdomen, with a sensation of excoriation or contraction of the anus."—*G.*

Neuralgia of the rectum; pain in the anus, returning regularly every day; worse when walking or standing, relieved by sitting.

"Stitches in the hæmorrhoidal tumors during cough."—*G.*

Urinary Organs.—Urine pale and profuse.

"Scanty, dark-colored, and acrid urine."—*Teste.*

Profuse, limpid, copious urination in hysterical subjects.

Nervous, watery urine is the characteristic.

Sexual Organs, Male.—"Sexual desire, with impotence."—*G.*

"Erections always on going to stool."—*Hah.*

Complete loss of sexual desire; frequent sighing.

Sexual Organs, Female.—Too frequent and too profuse menstruation is the most characteristic; but Dr. Guernsey says the menses are scanty, black, and of a putrid odor.

"Uterine cramps, with stitches."—*G.* [Globus prominent.]

"Chlorosis; the stomach is very delicate; œdema of the lower limbs."—*Dr. Eisenman.* [Globus hystericus.]

"Ignatia has a general correspondence to hysteria; characterized by a mental character which is mild, gentle, yielding though whimsical (else it were not hysteria) and introverted."—*D.*

Respiratory Organs.—"Dry, hollow cough mornings."—*Hg.*

"Dry, rough, hard, spasmodic cough, with a sensation of a feather, or the vapor of sulphur, in the throat."—*Jahr.*

"Constrictive sensation above the throat-pit, which compels one to cough."—*Teste.* [Constant sighing.]

"Constant hacking cough in the evening in bed."—*Teste.*

"Every time he stands still, during a walk, he coughs."—*Hg.*

When lying down in the evening has constant desire to cough.

Fever.—"During the chill, thirsty, seeks external warmth; during the fever heat, no thirst; external warmth very pleasant; sitting up relieves the chill."—*Hah.*

The chilliness predominates in Ignatia, and the heat seems almost external, with much sighing.

Extremities.—"Cold hands, and cold feet up to the knees; numbness of feet, legs, and sometimes the lower limbs."—*Teste*.

"Sudden spasmodic action of a muscle; and the limbs jerk suddenly."—*W. Pearson, M. D.*

Spasms and tetanic convulsions in hysterical women and children; especially when falling asleep.

Clonic convulsions in hysterical, fitful women.

"Tetanic convulsions, with frequent inclination to yawn."—*Marcy and Hunt*.

Chorea. The convulsions are greatest in the mouth, producing much distortion of the face; in females, globus.

"Spasms in children from fright or from worms.

Epilepsy, caused by fright or grief."—*Raue*.

"Child pale, cold; fixed, staring look; occasional screams; vomits food."—*A. F. Squire, M. D.*

"Stiffness of the nape of the neck."—*G.*

"Tearing pains in the back of the legs."—*Hah.*

Great weakness and exhaustion of the whole body.

Is very restless at night in bed, in hysterical subjects.

"Symptoms occur in the morning and evening, but more particularly in the morning."—*Teste*.

"Morning is the best time to give this remedy."—*Hah.*

Aggravation.—"Like *Nux vomica*, the symptoms are aggravated by contact, motion, open air, and from artificial warmth" (*Teste*); from mental affections; anger; fright; anxiety; silent grief; strong smells; coffee, tobacco, and when yawning.

Amelioration.—From warmth; changing position; when lying on the back, and from hard pressure.

IODINE.

Iodium.

An element. Alcoholic solution. Two parts by weight to nine of Alcohol. Trituration.

Antidotes.—Starch, Ant. tart., Hep., Sulph., Merc., Op., Bell., Ars.

Through the great vegetative nervous system, Iodine has fifteen special centers of action:

- I. GLANDULAR S. (1) *Hyper-Secretion*; (2) *Atrophy (Iodism)*.
- II. MAMMÆ, (1) *Increased Secretion*; (2) *Complete Atrophy*.
- III. OVARIES, TESTICLES. (1) *Stimulated*; (2) *Complete Atrophy*.
- IV. UTERINE GLANDS. (1) *Increased Secretions*; (2) *Atrophy*.
- V. THYROID GLAND. *Great Hypertrophy*.
- VI. LACTEALS, LYMPH. (1) *Stimulated*; (2) *Atony and Atrophy*.
- VII. SALIVARY GLANDS. *Salivation Without Fetor*.
- VIII. PANCREAS. (1) *Hyper-Secret'n*; (2) *Atrophy; Loss of Funct'n*.
- IX. LIVER. (1) *Stimulated*; (2) *Atrophy; Emaciation; Jaundice*.
- X. KIDNEYS. *Tubular Nephritis; Albuminuria*.
- XI. MUCOUS MEM. *Congestion; Inflammation; Mucorrhœa*.
- XII. SKIN. *Acne-Like Nodes; Urticaria; Eczema; Anasarca*.
- XIII. SEROUS MEMBRANES. *Plastic Inflammation; Effusion*.
- XIV. BLOOD. *Anæmic; Fibrine Increased*.
- XV. ARTERIES. *Prolonged Arterial Spasm*.

Glandular System.—Iodine, through the organic nervous system, acts upon the whole lymphatic and glandular system, especially centering upon the *thyroid, mesenteric glands, mammae, ovaries, and testicles*. At first, it stimulates them to increased action; as shown by the congestion of the ovaries, producing menorrhagia; in the testicles, by increase of sexual appetite; the salivary glands, by salivation; the liver, by increased biliary secretion; the pancreas, by increased secretion, and so on throughout all of the glands, including those of the mucous membranes. This hyper-stimulation is soon followed by depression of the most marked character, with great emaciation, both local

and general, which is the leading feature of the action of this drug. This emaciation is so marked that Iodine has been styled a "liquefacient" of the tissues.

Mammæ.—In Iodism, the mammæ and testicles go first, and then the face falls in, and the whole body wastes away. "It is generally admitted that the female breast is the only organ which may undergo complete atrophy as a result of the action of Iodine. Hufeland first suggested, over fifty years ago, the possibility that atrophy of the testicles might also be produced by the Iodine treatment. His idea found a ready acceptance, and was quoted so often by one author after another, that it gradually came to be accepted as a fact; but it has not been proved. A similar statement can not be made with regard to its action on the mammæ. Although all authorities, and especially Ricord, agree that it is of very rare occurrence, still cases are constantly occurring from time to time, in which the atrophy of the mammary glands is unquestionably an effect of the Iodine treatment."—*Ziemssen.*

Ovaries and Uterus.—In Joerg's experiments, "when the dose was augmented to two grains, a diffused sense of heat and sexual excitement were produced. Other observers have noted this abnormal sexual excitement; and some have stated that at times it precedes atrophy of the mammæ or of the testicles. Prof. Stille affirms that the menstrual flow may become excessive, or that during pregnancy abortion may be caused."—*Wood.*

Bartholow says he has never observed wasting of the mammæ and testes by large doses of the Iodides, but has no doubt about their antaphrodisiac effects; and he has seen permanent loss of sexual power caused by large and continued doses of the Iodides. This statement I can confirm. I have a patient now who has lost his sexual power from large doses of the Iodide of Potassium taken previous to my treatment of the case.

Dr. Hughes says: "The specific influence of Iodine upon the glands of the generative organs would suggest its frequent employment in morbid states of these glands, especially when occurring in scrofulous and tubercular subjects. In such patients, prostatitis in the male, and amenorrhœa, galactorrhœa, and leucorrhœa in the female, subject, have been cured by it. I speak with more diffidence when I suggest that to such an influence is due the dispersion of mammary, ovarian, and uterine tumors, which has sometimes been accomplished by Iodine. It is worth noting, however, that the tumors of the uterus which have—in Dr. Ashwell's words—'melted down, under the action of

Iodine, appear invariably to have originated in the cervix, i. e., in the glandular and secreting portion of the organ. In inflammation and induration of this part, moreover, Iodine is a remedy of tried value. Here, probably, what has been said about strumous glands holds good; and the ovary seems to bear to Iodine just the same relation as the thyroid. Ovarian dropsy, at least of the unilocular kind, is analogous to cystic bronchocele, and, like it, is far more amenable to the injection than to the administration of the drug. It should be borne in mind, I think, in cases of sterility where the strumous diathesis exists."

Thyroid Gland.—No remedy has a more powerful and specific action upon this gland; large and continued doses of Iodine frequently produce hypertrophy of the thyroid gland; and, in regular *bronchocele*, or simple soft hypertrophy of this gland, Iodine in its various preparations has cured thousands of cases. Stille says: "From time immemorial, sponges and other marine products containing Iodine have been recognized as popular remedies for goiter."

Dr. R. Hughes says: "Let us consider what bronchocele is, and what are the phenomena of its disappearance under Iodine. The thyroid body, whose enlargement constitutes the disease, is one of those ductless glands whose operation is doubtless concerned with the composition of the blood itself. It may be (as Mr. Simon thinks) a *diverticulum* for the cerebral circulation, as the spleen is for that of the stomach; but its structure forbids the supposition that this is its only function any more than that is of the spleen. The albuminous matter it separates from its large supply of blood is contained in the interstices of its honeycomb-like structure, and is probably taken up from thence by its no less abundant lymphatics. Simple bronchocele seems to be a failure on the part of the lymphatics to undertake this absorption, so that the secretion accumulates; and this, and not any increase in its fibrous or connective tissue, constitutes, at first at least, the hypertrophy of the gland. It may come on rapidly, like the splenic enlargement of ague, and, like that, may rapidly subside. In old and hard goiters, of course, the stroma itself must have become thickened, and the fluid possibly absorbed. These are permanent.

"Now, the conclusions at which we have already arrived, as to the action of Iodine on the lymphatic system, suggest forcibly that Iodine acts homœopathically in the cure of the simple recent and soft goiter which depends upon unabsorbed secretion. Another fact, pointing in the same direction, is the frequent

occurrence, noted by all observers, of increase of the tumor, with hardness, pain, and tenderness when needlessly large doses are given. But still more convincing is the minute dose which often suffices for the cure. Dr. Kidd records a case in which a large but soft goiter of many months' standing entirely disappeared in two months under the hundredth of a grain of Iodine night and morning. A still more striking instance is related in the *Revue Homœopathique Belge*, for August, 1874. The enlargement was of fifteen years' standing, and had reached the size of a child's head, but was soft. Iodine 6th was given on August 3, 1873, and repeated every few days up to the end of the year. Improvement was felt after the second dose; and, on January 1, 1874, the tumor had completely disappeared. Mr. Cameron has even had a case in which the 30th dilution effected a cure; but it took twelve months to do it.

"It is otherwise with old, hard goiters. Dr. Kidd mentions a hard goiter, in which he could get no effect from Iodine till he gave half a grain three times a day; but with these doses he cured it; and, with still larger quantities, the most indurated bronchoceles have been known to be melted down. I think we must here suppose a destructive action of the drug to be exerted, such as we shall have to invoke to account for its power over syphilitic gummata; and we shall often do well to use its local instead of internal exhibition. The success of the application of ointment of Biniodide of Mercury in India is, I understand, very constant and gratifying.

"When goiter is cystic, Iodine must be still more locally applied; it must be injected into the cavity."

Bartholow says: "The *parenchymatous injection* of tincture of Iodine, is a remedial means of great importance. An ordinary hypodermic syringe is charged with five to fifteen minims or more of the tincture, the needle is thrust deeply into the affected tissue, and the Iodine is slowly discharged. For injection into parts very deeply situated, long needles, such as are made for aspiration, can be used. This method of treatment is very effective in *hypertrophied tonsils, goiter, glandular tumors, and the compound cystic and glandular growths* so frequently found in the neck. The author has witnessed the cure of many cases of this kind by this method. Some precautions must be attended to in practicing these injections. When the point of the needle is inserted as deeply as desired, it should be moved about to disengage it from any vessels into which it may have penetrated. The injection should be practiced slowly, to give time for the tincture to diffuse

into the substance of the tumor." Wood says it acts well in *exophthalmic goiter*.

Lacteals and Lymphatics.—Iodine produces on these glands a depressing and atonizing influence, impairing their reproductive energies, and producing functional embarrassment and atrophy.

Dr. R. Hughes says: "Iodine has been styled a 'liquefacient' of the tissues, and is supposed to promote their disintegration, with such rapidity that the waste is in excess of the supply, and hence atrophy. We may have to call up some such action when we come to consider the power of the drug over syphilitic and other neoplasms; but we can not, I think, use it to explain the general wasting which is induced. To begin with, the quantity which needs to be introduced is quite insufficient to effect such a process. We have, moreover, called to mind that the very function of the lymphatic absorbents is to take up such tissue substance, disintegrated but not altogether effete, and, having elaborated it into blood, to pour it back again into the circulation. Thus, supposing the absorbent system to continue healthy, the result of such increased rapidity in the disintegration of tissue would only be an increase in the purity of the substance and the energy of the functions of the entire organism.

"In this 'supposing,' I have indicated what I believe to be the true direction in which to look for an explanation of the atrophy of Iodine. Its sphere is the great absorbent system, especially in its lacteal portion; but its action there—probably by irritation of the active protoplasm—is depressant rather than stimulant. Given a sluggish taking-up of the chyle by the lacteals, and an insufficient elaboration of their contents by the mesenteric glands, and we have at once a most important channel of nutrition choked up and rendered useless. The fatty aliments being those which the lacteals chiefly select, the emaciation becomes more rapidly apparent than if it had been the albuminous elements whose supply was cut off. Dr. Hughes Bennett,—just lost to us,—following Ascherson, of Berlin, has shown that the presence of oil is essential to the assimilation of albumen; and infers, if the fatty elements of food be insufficiently supplied, the albumen remaining unassimilated in the blood will be deposited in the tissue as tubercle. If it is still tenable to explain in this way the occurrence of primary tuberculosis, it may account for the occasional development of phthisis pulmonalis in Iodized patients, in whom no previous tendency thereto had existed. . . .

"According to the doctrine of Niemeyer, now generally received, scrofula is that vulnerability of constitution which we

call 'delicacy' *plus* a tendency on the part of the lymphatic glands in the neighborhood of any disordered part to take on hyperplasia and become enlarged. The other so-called 'strumous' affections are in no way specifically distinct from the same diseases in non-strumous subjects, though they are more readily induced, and more difficult to cure. But this doctrine, though it well connects the facts, does not explain why the lymphatic glands are so apt to take on the morbid action specified. It leaves out of sight, moreover, what I think can not be gainsaid, that these glands may be, and often are, primarily affected. I must agree with Dr. H. Goullon, that scrofula is essentially a morbid condition of the lymphatic and lacteal system, whereby the lymph and the chyle are supplied in an imperfect or vitiated state to the blood, and the nutritive processes thereby impaired.

"If this be so, we can well understand that Iodine may change for the better the whole scrofulous diathesis, owing to the profound action we have seen it to possess upon the lacto-lymphatic system. It must be especially suitable to the sanguine form of the scrofulous constitution. I have great confidence in it in the *tabes mesenterica* of childhood. Under its use, the hectic first subsides; and the remaining symptoms soon disappear. I give the third decimal dilution.

"Here also, however, I suspect that any power that Iodine may have over old indurations and suppurations of the cervical glands is due to its destructive action, and requires substantial doses. It was early noted that it promoted the formation of matter in these adenopathies."

The salutary action Iodine has over syphilis, will be particularly spoken of under the action of Iodide of Potash. Iodine is one of the leading antidotes for Mercury.

Salivary Glands.—This drug produces salivation more frequently than any known drug, excepting Mercury, and has often cured salivation caused by Mercury, and that of pregnancy. The secretions are destitute of the fetor so characteristic of Mercury.

Liver.—Through the depressing and atonizing influence Iodine has upon the lymphatic system, the functions of the liver are destroyed, and atrophy of the organ is produced, with great emaciation and debility. At first the biliary secretion is increased. Pereira and Watson rank it next to Mercury in chronic diseases of the liver; and Dr. Dudgeon has cured obstinate jaundice where organic disease of the liver was supposed to be the cause. In syphilitic diseases of the liver, Iodine and especially the Iodide of Mercury and of Potassium are the first remedies to be studied.

Pancreas.—This organ is at first greatly congested, with increased secretion, followed by atrophy and loss of function. For acute and chronic diseases of the pancreas, Iodine is the leading remedy.

Kidneys.—Iodine is chiefly eliminated through the kidneys, but to some extent by all the mucous membranes. "Numerous observations have been made on the mode and the form in which the Iodine preparations are eliminated. According to these, they first appear in the saliva, combined with an alkali (as a rule, sodium), in from one and a half to ten minutes after they have been taken; then, after some hours, in the urine, in the gastric juice, in the bile, and in the milk, tears, and blood. Much the larger proportion of the Iodine leaves the organism within twenty-four hours by way of the urine; a small amount, however, remains in the body for some time,—even for several weeks,—and appears, according to the researches of Cl. Bernard and Heubel, to go through a sort of cycle; inasmuch as the salt eliminated in the saliva and stomach is reabsorbed in the intestinal canal, and the substance is only gradually eliminated in small quantities at a time by the kidneys. Iodine was also detected in the milk of women who were suckling infants, several days after it had disappeared from the urine."—*Ziemssen*.

Prof. H. C. Wood says: "During its passage through the kidneys, Iodine undoubtedly exerts an influence upon those organs, as is shown by its producing albuminuria at times. It is indeed asserted that it occasionally causes a true tubular nephritis. The evidence as to its effects upon the solids of the urine, is both contradictory and insufficient. M. Rabuteau dieted himself for five days, measured the quantity of urea daily eliminated, took Iodine on the fifth day, and found a decided decrease in the excretion of urea. It is plain that this experiment was too slight to be of much value; and Dr. Hermann von Boeck found that the ingestion of Iodine does not increase notably the elimination by the kidneys or bowels. On the other hand, M. Bouchard declares that Iodine does increase the daily elimination of urea, especially in diabetic patients. Dr. C. Handfield Jones analyzed the urine of six patients taking large doses of Iodide of Potassium, with the following results: First, water increased in three cases very much, in one slightly, in two diminished; second, acidity increased in three, and diminished in two; third, urea increased in three and diminished in three; fourth, phosphoric acid and sulphuric acid increased in four and diminished in two; fifth,

chlorine increased very greatly in two cases, moderately in one, and decreased in two; sixth, uric acid increased very greatly in two cases and diminished in four." This shows how Iodine affects different constitutions. I have no doubt, if the parties spoken of above had been all inclined to be fleshy, leuco-phlegmatic constitutions, the effects of Iodine upon all would have been very similar, on account of the great affinity Iodine has for hydrogen. It also affects the lymphatics of the kidneys, and should be well studied in Bright's disease.

Mucous Membranes.—This drug has a specific and powerful action upon these tissues. "Of the affections of the mucous membranes, the conjunctivitis, which consists in reddening of the conjunctiva and marked increase in the secretion of tears, is often developed, according to Ricord, on the second or third day after the beginning of the Iodine treatment. Paul Bernard frequently saw it develop during the second and third month of treatment.

"The affections of the mucous membrane of the nose and throat—the coryza and angina of Iodism—are more common. Some authors state that salivation is a rare symptom of Iodism, while others have never met with it in this connection. It is said that it can be distinguished with certainty from Mercurial salivation by the salty taste, and by the absence of fœtor ex ore, stomatitis, and swelling of the glands. That the last symptom is not invariably wanting, is proved by Rose's case, in which the extreme salivation was accompanied by a mumps-like swelling of the glands.

"The Iodine coryza is characterized by a copious secretion of watery mucus, moderate redness, and slight swelling of the nasal mucous membrane. In the angina, the patients complain of the intense itching in the throat, and not so much of difficulty in swallowing; the posterior wall of the pharynx is deeply reddened, and somewhat intumescent. The coryza is, as a rule, combined with an intense frontal headache.

"Sartisson has attempted to explain the pathogenesis of the affections of the mucous membranes in Iodism. He suggests it as possible that Potassium Iodide, which is eliminated in the saliva and nasal mucus, may be decomposed by the carbonic acid and the chlorides in the secretions; the Iodine which is thus set free could then act as a direct local irritant on the adjacent mucous membranes, and produce the coryza, the conjunctivitis, and the angina. The recent observations of Binz tend to support the theory of the occurrence of such decompositions; but still we

can not at once and unconditionally exclude the other possibility, that the disorders in question may originate in anomalies in the innervation of the blood-vessels and glands of the mucous membranes."—*Boehm*. [To the latter, I believe, we are to attribute the action of this drug.]

Small doses of Iodine of from two to four grains, produce heat and constriction of the throat, salivation, nausea, eructation, epigastric pains, and vomiting of copious bilious matter.

The action upon the gastro-intestinal mucous membrane may be so increased as to produce slimy stools. Joerg and his assistants took from six to fifteen drops, which gave rise to colic, borborygmi, hunger, thirst, watery and frothy stools; an increased flow of light-colored urine, of nasal mucus and saliva; transient malaise; tension of the head, and oppression of the chest.

Hughes says: "Besides the gastritis and enteritis of its local influence, there is a gastric, if not also an enteric, catarrh, occasionally resulting from small doses, and seen after introduction of the drug into the circulation otherwise than by the stomach. The lower portions of the respiratory tract exhibit signs of the same irritation that we have seen in the upper. In the larynx and trachea, we may have hoarseness, aphonia, and chronic inflammation, even simulating laryngeal phthisis; and, while the bronchi are slightly and rarely affected, the lungs show the influence of the drug by congestive oppression, hæmoptysis, and even pneumonia."

Skin.—"The Iodine exanthemata are variable in form, and appear in various localities. The form that is most commonly met with is an eruption of acne-like nodules on the skin of the face, forehead, temples, neck, and upper half of the thorax; more rarely this extends also over the abdomen and extremities.

"Bazin assumes three different forms of Iodine exanthemata. The mildest form is the *erythematous*, which appears in the shape of more or less universal urticaria-like knobs. Out of this form the second more common *papular* form is developed. The larger papules are surrounded by areolæ, which are often confluent, and present a deep red color, vanishing for a moment on pressure. Finally, a *pustular* exanthema is developed from the papular form; it occurs in scattered spots on the face, thorax, and extremities. Occasionally a few of the pustules develop into small dermal abscesses. We must, finally, make room here for the statement made by Mercier, that Kuess, in Strassburg, has not unfrequently met with œdema of the eyelids, the skin of the abdomen and of the forearm, in connection with Iodism.

"Iodine exanthemata run their course without fever, and, like all the symptoms so far mentioned, vanish spontaneously when the remedy is discontinued."—*Dr. H. Von Ziemssen.*

Stille says: "In some cases, Iodine affects the *skin* and even the *hair*, rendering the color darker. More commonly, there is a tendency to copious perspiration and to eruptions of urticaria, impetigo, prurigo, lichen, eczema, furuncles; and, in some cases, ecchymosis or purpura of the inferior extremities has been observed."

Serous Membranes.—In some cases, Iodine has caused serous effusion into the pleura and peritoneum. In some, there is pain over the false ribs, with dyspnoea, cough, and in some cases fever.

Dr. R. Hughes says: "The action of Iodine on the serous membranes has been little utilized in our school; but to it belongs, I think, the occasional curative power of Iodide of Potassium in hydrocephalus and hydrothorax. To it, also, I am inclined to refer the usefulness of Iodine when locally applied, or injected, to remove effusions into serous or synovial cavities. It is commonly supposed to act here by setting up an adhesive inflammation of the walls of the sac. But Dr. Jousset has disproved this hypothesis in the case of hydrocele, and shown that inflammation is not essential, or even favorable, to the curative process. Iodine is found in the serous effusions of hydrocele and hydrarthrosis when it is taken internally. To apply or inject it, is merely to intensify its influence by concentration, and, when the disease is local, seems the most rational practice."

Iodine, placed in contact with serous membranes, produces inflammation of varying intensity, arresting the secretion proper to the membrane; but, when much concentrated, it excites adhesive inflammation; hence its utility injected into serous cavities, as in hydrocele, etc.

Its action upon the serous membranes of joints is nicely shown by its local application in dropsy of the joints, from rheumatism, gout, or synovitis. Ringer says: "Like blisters, it eases the pain, and often removes the fluid distending the cavity of the joint. Like blisters, too, it often causes, for a few days, increased distention of the joint, the good effects not becoming apparent till later. This increase of swelling may be regarded as an indication of the success of the application. The tincture or the ointment is of the greatest benefit in chilblains. I know of nothing so effective."

Blood.—Iodine has a powerful hæmatic action. Dr. Hughes says: "It can hardly be imagined that so universal an irritant of the living matter should circulate in the blood without affecting its corpuscles. Under the long-continued influence of Iodine, the blood and the secretions become thin and watery. It is, like Mercury, an anti-plastic."

Arterial System.—Rose, on the ground of his own observations, assumes the pathognomonic effect of poisoning by Iodine to be a prolonged arterial spasm, which produces the suppression of urine as well as the symptoms of paleness, weakness of the pulse, and coldness. Naturally, such a universal contraction of the arterial system presents an obstacle to the circulation of the blood, which forces the heart to excessive exertion; hence the exceedingly quick pulse (by irritation of the accelerating fibers). In Rose's case, it finally led to paralysis of that organ. The cessation of this spasm is followed by excessive reddening of the skin, and the relative rise in temperature, phenomena which probably led to the erroneous assumption of an Iodine fever. Rose failed to find the only true criterion of fever, viz., the rise in the temperature of the body."—Ziemssen.

Iodism or Chronic Poisoning.—Iodism produces the following effects upon the system: 1. Nervous disturbances. 2. Derangements of digestion. 3. Affections of the mucous coats of the eye, nose, and throat, with anomalies of secretion. 4. Affections of the skin. 5. Atrophy of the glandular organs.

Dr. A. Stille says: "The general derangement of the health which is sometimes the consequence of taking large doses of Iodine (or Iodide of Potassium) for a long time, was early described by Coindet, who noted among its phenomena the following: A frequent pulse, palpitation of the heart, dry cough, sleeplessness, rapid emaciation and loss of strength, swelling of the legs, trembling of the limbs, nervousness of the movements, etc. Subsequent experience enables us to enlarge this catalogue considerably, which, however, is only to a small extent, and in rare cases, descriptive of the effects of Iodide of Potassium.

"Iodism is most conspicuously manifested in the alimentary canal. Digestion is impaired, and the appetite lost; the patient complains of an annoying and even a painful sensation in the throat and epigastrium, which ultimately becomes a fixed burning pain in the latter, and a distressing heat and dryness of the former. Watery diarrhœa ensues, with colic and sometimes sali-

vation,—which, in certain cases, may be attributable to the revival of Mercury in the system,—conjunctivitis, coryza, nasal catarrh, and emaciation. The opinion has been entertained, that Iodine produces emaciation by its stimulation of the absorbent system. Hence the loss of flesh usually proceeds faster in children than in adults. Graefe, of Berlin, employed Iodine as ‘an emaciating agent,’ with complete success, in a case of polysarcia. Cullerier has pointed out, that, if the patient is in poor condition through the influence of a disease which Iodine is capable of curing, he will increase in flesh with the progress of the cure. He cites many cases from his own experience, which illustrate the tendency of Iodine to produce atrophy of the testicles and the mammæ, and to diminish the mammary secretion. Other symptoms referable to the *nervous system* are produced by Iodine; such as anxiety, palpitation of the heart, sleeplessness, painful dreams, headache, disordered vision and hearing, dullness of mind, and general debility. Occasionally there is tremulousness of the hands, arms, and legs; and even convulsive attacks have been observed. Sir B. Brodie asserts that he has known Iodine to cause paralysis. A man under treatment with Iodide of Potassium for *acne indurata*, at first experienced a painful burning sensation in the feet, then a trembling of the limbs, and a feeling like intoxication. His movements were irregular and uncertain; expression haggard and dull; he became short-sighted; objects often appeared double or in rotary motion. By degrees, the muscles of the lips and cheeks became paralyzed, the gait staggering, and the articulation spasmodic or jerking.” [The skin and generative organs also become greatly affected; which see under their appropriate headings.]

Therapeutic Individuality.

Generalities.—Scrofulous people, with a low, cachectic state of the system, profound debility, and general emaciation.

“There is a remarkable and unaccountable sense of weakness and loss of breath in going up stairs.”—*G.*

“Scrofulous women, with dwindling-away of mammæ.”—*G.*

Sexual Organs, Male.—Testicles hypertrophied, with sexual excitement.

Testicles atrophied, with complete impotence; complete loss of sexual power is a prominent symptom of Iodine.

Sexual Organs, Female.—"Mammæ hang down heavily and lose their fatness."—*G.*

"Acute pain of the mammæ, developed by the inflammation of the uterus; they are very sore."—*G.*

"Great weakness during the menses, particularly when going up stairs."—*G.*

Induration and hypertrophy of the ovaries and uterus.

"Long-lasting uterine hemorrhages."—*G.*

"Uterine hemorrhage after every stool, with cutting pains in the abdomen, loins, and back."—*G.*

"Premature and too copious menses, with goiter; dwindling-away of the breasts, and great weakness on going up stairs."—*G.*

"Leucorrhœa, corrosive even of the thighs and linen; worse during the menses."—*G.*

"Dull, pressing, wedge-like pains, from right ovary toward the uterus."—*Hg.* [And great emaciation.]

"Dropsical affections of the ovaries, with pressing-down toward the uterus."—*Hg.*

Respiratory Organs.—Pains in the larynx, with great hoarseness, or complete aphonia.

Hoarseness, with constant hemming and hawking.

"Tightness and constriction about the larynx, with hoarseness."—*Hg.*

Membranous croup in strumous subjects, with dark hair.

"Dry, croupy cough; the mucous membrane of the larynx and trachea is dry; the mucus secreted is hard and tough."—*Dr. A. E. Small.*

Membranous croup, with wheezing and sawing respiration: dry, barking cough; child grasps the throat with the hand, especially children with dark hair and eyes.

No remedy causes a more violent inflammation of the larynx, and with such certainty. I have derived complete satisfaction from its use in croup, and acute and chronic laryngitis, where there is a great deal of hoarseness; and Baehr says he has more confidence in Iodine for croup than in any other one remedy.

Trinks knows of but two kinds of croup, the acute and the torpid. *Iodium* is specific to both. He needs no *Aconite*, rarely *Hepar sulphur*, and ascribes the favorable results obtained to the continued administration of Iodine in repeated and increased doses, if the intensity of the disease is not broken by weaker doses. (Internally and by inhalation.)

Great shortness of breath; palpitation of the heart, and shortness of breath on going up stairs.

"Dry morning cough, from tickling in the larynx, and burning in the chest."—*Hg.*

Tendency to bronchial and pulmonary congestion and hemorrhage, in weak, scrofulous people.

Cough, with expectoration of large quantities of mucus, tasting salty or sour.

A feeling of great weakness in the chest.

Tightness of respiration; inspiration very difficult.

The slightest exertion causes great difficulty in breathing.

"Phthisis pulmonalis, with constant tickling and inclination to cough, in the trachea, and under the sternum; expectoration of transparent mucus, streaked with blood; morning sweats; emaciation; wasting fever; rapid pulse; diarrhoea, and in females amenorrhoea. It appears capable of doing everything but checking the deposition of fresh tubercles."—*Hughes.*

Dr. Jousset says the cough of Iodine is short, like that of Sulphur; it is oftener loose than dry; accompanied by a thick mucous and puriform expectoration, often bloody. Dr. Hirschel says, *Iodine*, *Bromine*, and *Spongia* have this in common; that they especially cure the affections of the upper part of the respiratory organs; that they correspond to a dry cough, if of a catarrhal, inflammatory, or organic origin. Iodine is the strongest, but most slow, in action, having alone some relations to the bronchi and pulmonary tissue. I have frequently witnessed from Iodine splendid effects in long-standing laryngeal catarrhs. It alleviates in tuberculosis; in croup, it is our last anchor, where *Spongia* and *Bromium* fail. It is not an easy matter to select from these three remedies; each may be indicated; but *the more plastic the exudation the more Iodine is indicated.*

Violent palpitation, aggravated from the least exertion.

Pleuritic effusions.

Nose.—Dry coryza, becoming fluent in the open air.

Loss of smell; nose dry and stuffed up, can not breathe through it; or painful and swollen, with chronic fetid discharge.

Digestive Organs.—Tongue heavily coated.

Salivation, especially after Mercury; gums bleeding and soft.

"Continual taste of salt in the mouth."—*G.*

"Mouth filled with mucus on awaking in the morning."—*Hg.*

Ulcers in the mouth; gums red and swollen.

Inflammation of the throat, with burning pain.

Ulcers in the throat, with induration of the glands of the neck.

Deglutition impeded from ulceration of the œsophagus.

Ravenous hunger; can not be satisfied.

"Continual empty eructations, from morning till evening, as if every particle of food was turned into air."—*G.*

Violent and continued vomiting, renewed by eating.

Left hypochondrium hard, and painful on pressure.

Swelling and hypertrophy of the liver.

Incarcerated flatulence, with distention of the abdomen.

"Stools, blackish, watery; *brownish; frothy; bloody; whitish mucus.*"—*J. B. Bell.*

"Stools of mucus and blood. Suitable only to chronic diarrhœa of an exhausting character, with constant desire for change of place, like Arsenicum."—*J. B. Bell.*

This great restlessness—can not sit, nor sleep, but must change position—is a marked characteristic.

"Tabes mesenterica, with rapid emaciation, night sweats, slow fever, dry laryngeal cough; diarrhœa."—*Dr. R. Hughes.*

Stools hard, knotty, and dark colored.

Kidneys.—Copious and frequent micturition.

"Urine dark, thick, ammoniacal; dark yellowish-green, acrid; milky, with cuticle on its surface."—*Hg.*

Bright's disease, with albuminous urine, much emaciation and debility.

Out of breath from the least exercise.

Head.—Very sad; melancholy mood.

"Feels constantly as if she had forgotten something."—*Hg.*

Cross, with excessive nervous excitability.

Much confusion of the head; can not bear to work.

Must keep in motion day and night; brain feels stirred up.

Headache, worse in warm air; motion makes it throb.

Vertigo, with throbbing headache; very weak and tremulous; rising aggravates it, and produces faintness.

Throbbing in head at every motion; worse in warm air.

Chronic congestive headache, in old people with dark hair and eyes.

Swollen, distressed countenance; face pale yellow; lips blue, and the veins much swollen.

Catarrhal deafness.

Eyes.—Optical illusions; obscuration of sight, like a veil before the eyes; pupils dilated; lids œdematous and swollen.

"Scrofulous conjunctivitis, with induration of the glands."

Glands.—*Goiter*, that is soft (not so useful when hard), with swelling and induration of the cervical glands.

Hypertrophies of all glandular structures, in scrofulous people.

Skin.—Rough, dry skin, inclined to be brown.

Dirty, yellow, clammy, moist skin.

Profuse night sweats, with great emaciation and debility, and tendency to take cold, especially in warm weather.

Nodosities, acne, urticaria, and inveterate impetigo scrofulosa.

Tertiary syphilis, with ulceration of the skin.

Tendency to small boils and abscesses.

Fever.—Chill predominates, cold most of the time.

Flushes of heat alternating with the chill.

Debilitating, sour sweat, mostly in the mornings.

Extremities.—Great weariness of the arms and legs from excessive debility.

Much coldness of the hands and feet.

Acid, corrosive foot-sweats.

Oedematous swelling of the feet.

Much trembling of the limbs, with *subsultus tendinum*.

Rachitic children that can not bear warmth.

All diseases that call for Iodine, as a rule have great emaciation attending them.

Chronic rheumatism of joints, and the bad effects of Mercury.

Aggravation.—From warmth in general; from wrapping up the head; can not even bear the hat on. From warm room, or any really warm atmosphere. From motion; noise, and at night.

Amelioration.—From cold air; washing in cold water; after eating and after sleep.

IPECACUANHA.

Cephaelis Ipecacuanha.

Habitat: South America, etc. Tincture of dried root, Class IV. Triturations.

Antidotes,—Ars., Verat alb. et vir., Tabac., Cupr., Ant. tart., Nux vom., Cinch., Arn.

Through the cerebro-spinal nervous system, Ipecacuanha has eight special centers of action:

- I. MUCOUS M. (LUNGS, STOM., INTEST.) *Mucorr.; Catarr. Inflam.*
- II. STOMACH.(VAGI.) *Violent Nausea and Vomiting.*
- III. INTESTINAL CANAL. *Diarrhœa; Catarrhal Inflammation.*
- IV. LUNGS. *Asthma; Catarrhal Inflam.; Copious Mucorrhœa.*
- V. CORD.(MOTOR TRACT.) *Paresis.*
- VI. SKIN. *Diaphoretic. (LOCALLY.) Pustular Inflammation.*
- VII. CIRCULATION. *Lessened Blood-Pressure; Hæmostatic.*
- VIII. TEMPERATURE. *Lowered.*

Mucous Membranes.—Through the filaments of the pneumogastric nerve, Ipecacuanha has a specific and profound action upon the mucous membrane of the lungs, stomach, and small intestines, producing great increase of mucus, and in large doses going on to absolute inflammation of the gastro-intestinal mucous membrane.

Vagi.—The specific action of Ipecacuanha upon the vagi demands a careful study by every physician, especially in regard to its emetic powers. "The quantity requisite to produce an emetic operation can not be definitely stated. In 1874-75, Dr. Samuel Pye published a list of nearly three hundred persons to whom he had administered Ipecacuanha, together with its dose, and the effects produced by it.

"The average quantity which he gave was only *two* grains; yet it generally produced vomiting three or four times, and sometimes oftener. In about twenty of the cases it occasioned several stools besides. On the other hand, it has been given in dysentery, sixty grains at a dose, without any evacuations whatever following.

"Cullen taught that the powder, to the quantity of a grain, or perhaps less, in many persons, can hardly be given without exciting nausea and, perhaps, vomiting. Yet, in nine persons out of ten, we need hardly depend upon any dose under five grains. In small doses, that do not excite vomiting, it pretty certainly acts upon the intestines. The laxative action of Ipecacuanha, when given in small and repeated doses, can not well be questioned; and, if mixed with purgative medicines, it increases their power."—*Stille*.

Prof. H. C. Wood says: "When exhibited in small repeated doses in man, it produces malaise, with nausea, and, perhaps, an increase of the secretions of the salivary glands and of the mucous membranes of the bronchial tubes and of the stomach. In large amounts, it causes vomiting, accompanied by only a moderate amount of nausea but by a decided increase of the secretions. The vomiting, even when very large amounts are taken into the stomach, is not apt to be severe, nor the prostration marked,—no doubt, because the excess of the drug is rejected before absorption. In large doses of *Emetia*, this mildness of action, in all probability, would not occur; certainly, animals are readily killed by the Alkaloid. That the active principle is absorbed, and that the vomiting is so produced, is shown by the experiments of Orfila, and Drs. Dyce Duckworth, D'Ornellas, and Pecholier, who found that vomiting followed the hypodermic use of *Emetia* in dogs and cats. If it be true, as affirmed by D'Ornellas, that the *Emetia* produces vomiting much more slowly when thrown into the veins than when given by the stomach, it would seem that the local irritant action of the drug efficiently favors emesis."

Dr. Hughes says: "I must first speak of the relation of Ipecacuanha to vomiting. It has long been known as a certain, though tardy and mild, emetic. An interesting paper was furnished to the *Medical Observations and Inquiries* (vol. vi.), showing how small the doses needed to effect this purpose, from two to four grains nearly always proving sufficient. Physiological investigation has since proved that this action is specific; that is, it is set up when the drug is introduced into the system otherwise than through the stomach. But it has also proved that—unlike Tartar emetic and Apomorphia—Ipecacuanha always, however introduced, excites vomiting through the stomach. Divide the pneumogastrics, so that their gastric extremities shall not be impressionable, and no vomiting can be set up by Ipecacuanha, while the two other emetics act as usual. This explains why Ipecacuanha operates so much more freely and quickly when in-

troduced into the stomach, than when injected subcutaneously, while exactly the opposite is true of the others."

Poisonous doses of Emetia given to animals, produce catarrhal inflammation of the gastro-intestinal canal.

Dr. Hughes says: "In acute catarrh of the stomach, especially in children, it wins the applause of both schools; and, in many dyspepsias, depending on chronic catarrh of the same organ, it is highly beneficial. Upon the intestines, it acts in the same manner. In moderate doses, it causes mucous diarrhœa, with much griping, the stools being often green, or greenish yellow; and, when Emetia is injected subcutaneously, the intestines are always found inflamed. Correspondingly, it has been used largely in the school of Hahnemann in the mucous diarrhœa of children, even when inflammatory symptoms appear." In *bilious dysentery*, the old school have no remedy upon which so much confidence is placed as upon Ipecacuanha, in large doses, of from ten to thirty grains, given until emesis is produced; and then the dose is reduced. Most brilliant cures have followed this method; and the specific action of the drug tells the Homœopathist why no remedy can quiet tenesmus sooner than this drug given in large doses. Prof. H. C. Wood says: "Clinical experience also shows that Ipecacuanha acts upon the digestive tract, whether given in large or small doses. It is very apt in man to increase and modify the intestinal secretions. It probably influences the liver; since Pecholier affirms, that, in animals killed by it, no hepatic glucose can be found. Moreover, great advantage from its use may be obtained in the condition known as biliousness. In bilious dysentery, it will often produce large tarry discharges; and I have seen a change in the color of the stools follow its use in catarrhal jaundice." Rutherford found Ipecacuanha, when mixed with bile and introduced into the duodenum, a powerful hepatic stimulant, increasing the secretion of bile.

Respiratory Organs.—"The post-mortem results obtained in animals poisoned with Ipecacuanha are diverse, but affect chiefly either the lungs or digestive tract. Pecholier, in his earlier experiments, found great paleness of the lungs, with intense hyperæmia of the stomach, and the upper half of the intestines; but, in some of his latter experiments, the lungs were profoundly influenced. Dyce Duckworth especially noted intense hyperæmia of the lungs, which were in some places emphysematous, but in other portions collapsed and even affected with true consolidation. The lesions were much less marked in the intestines than in the

lungs, which resembled very closely those taken from the bodies of animals killed by sections of the vagi. The pulmonic lesions were found to be most intense in the rabbit; the intestinal, in the dog, cat, and guinea-pig. D'Ornellas has seen cases where ischæmia of the pulmonary tissue was found after death caused by Emetia."—Wood.

Dr. Hughes says: "We come now to the action of Ipecacuanha on the respiratory organs. When these receive it by inhalation or ingestion, a similar train of phenomena appears. Irritation of the mucous membrane is set up,—increased secretion going on to catarrhal inflammation. But more marked than this, and often out of all proportion to it, is the involvement of the extremities of the incident nerves. Continual sneezing, spasmodic cough, and especially dyspnœa of an asthmatic kind, are the sufferings of those who have the misfortune to be susceptible to Ipecacuanha, whenever they are exposed to its emanations. Dr. Imbert-Gourbeyre has collected numerous instances of this effect of the drug. It is of the contingent order, only appearing on certain persons. But, with them, it results *omni dosi*. They may be at the top of the house while Ipecacuanha is being powdered in the basement, yet ere long they will feel the influence of their enemy. Sometimes their conjunctival and Schneiderian membranes are most affected; the eyes are reddened, smart, and water, and there is copious defluxion from the nose, with incessant sneezing. More commonly, the influence is felt lower down, in dyspnœa, wheezing, and cough, ending in profuse mucous expectoration. They suffer like the subjects of hay-fever and asthma."

"Dr. Ringer has lately extended the influence of Ipecac over the disorders of respiration, by introducing the Wine into the chest in fine spray. By this means he is able greatly to relieve and even to cure chronic cases of winter cough, where the bronchial membrane is always engorged, and the incident nerves in continual excitement. The success he has obtained should encourage us to repeat the experiment, and perhaps to use the drug in this form in hay fever and in the asthmatic paroxysm. It is the more rational to do so, as we have but feeble evidence of the power of Ipecac to cause respiratory troubles through the stomach; whereas, when inhaled, it does so, as we have seen, in the minutest dose. The spray should be used night and morning, and it soon controls the dyspnœa and cough."—Hughes.

According to D'Ornellas, Pecholier, and Foulkrod, Emetia in toxic doses usually kills by arresting the respiration. But, in many of Dyce Duckworth's experiments, the death was certainly

the result of cardiac paralysis, possibly because the poison was thrown directly into the circulation.

Nervous and Muscular Systems.—"Upon the cerebrum, Ipecacuanha exerts no perceptible influence; but, as both D'Ornellas and Pecholier have found, that, after death from Emetia in the frog, both nerves and muscles retain their susceptibility to feeble galvanic currents, the paralysis which the poison produces is probably spinal. D'Ornellas and Pecholier are in opposition in regard to the action of the Alkaloid upon sensibility, the one affirming that it is not, the other that it is, affected."—*Dr. H. C. Wood.*

Skin.—When Ipecacuanha is locally applied to the skin, or a denuded surface, it is found to be a decided irritant, producing an eruption described by Dyce Duckworth to be at first small, discrete pustules, with a rather large areola. Afterward, if the application be persisted in, large pustules appear, followed by severe ulceration. It also produces emesis, greatly relaxes the skin, and promotes cutaneous transpiration; and Dr. Ringer says, it is supposed to be a diaphoretic. Of course, it excites sweating when it excites nausea; but, even irrespective of this condition, it may perhaps be a diaphoretic.

Circulation.—"Here the action of Ipecac is but feeble, and is not yet clearly made out. In a series of elaborate experiments by Dr. Dyce Duckworth, the Alkaloid failed to influence materially the circulation, at least until very late in the poisoning. The pulse rate was not constantly affected; sometimes it was apparently lowered, sometimes it remained about the same, and sometimes it was seemingly increased. The effect of toxic doses was, however, marked. Immediate suspension of the cardiac action followed injection into the jugular vein of a dog; in another case, in a minute and a half after half a grain of Emetia, the arterial pressure descended from 135 to 20, and in a moment the animal was dead from cardiac paralysis. There is no proof that Emetia ever causes vaso-motor spasm, while it is certain that toxic doses directly paralyze the heart."—*Dr. H. C. Wood.*

Its Hemostatic Action.—This is of great value to the physician. Dr. Hughes says: "I have now to speak of the use of Ipecac in hemorrhages. Dr. Imbert-Gourbeyre has collected various testimonies to its value here, and has convincingly shown it to be homœopathic in its *modus operandi*. Several authors have seen it produce epistaxis and hæmoptysis in connection with its

respiratory troubles; and, in an observation of asthma caused by its emanations, and lasting some days, it is noted that menstruation appeared prematurely, and not only the sputa, but also the stools and urine, were sometimes tinged with blood. It is now forgotten in ordinary practice; but among Homœopathists it holds high rank as a remedy in intestinal hemorrhages, in hæmoptysis, hæmatemesis, menorrhagia, and metrorrhagia. The presence also of blood in the *ejecta* is always held to strengthen the indications for it in vomiting, dysentery, and pertussis." It arrests hemorrhages, by stimulating the arterial capillary blood-vessels to contract when in such a flaccid condition as to cause hemorrhage.

Temperature.—Pecholier, Dyce Duckworth, and D'Ornellas all state, that in Emetia-poisoning there is a distinct fall of temperature in the mouth, and on the surface of the body, but that in the intestines the temperature either remains stationary, or, more commonly, rises. D'Ornellas affirms that it always rises decidedly. This rise is probably, as D'Ornellas believes, local, and due to the action of the poison upon the intestinal tract."—*Dr. H. C. Wood*. [To me it seems to be due to the congestion and inflammation of the intestinal mucous membrane.]

Therapeutic Individuality.

Gastric Affections.—The chief indication for Ipecac in all diseases, is found in its persistent nausea and vomiting.

Violent and long-continued nausea, with vomiting of large quantities of tenacious, white, glairy mucus.

Constant and continued nausea is the great key for Ipecacuanha, in all diseases where it will act beneficially.

"Stooping causes him to vomit."—*Hg.*

"Nausea, with distention of the abdomen, and dryness of the throat; after vomiting inclination to sleep."—*Hg.*

Nausea, and vomiting of blood. Hæmatemesis.

Feeling of qualmishness, emptiness, and flabbiness about the stomach, with profuse flow of watery saliva.

Flat taste, with white, thickly coated tongue.

Great accumulation of saliva in the mouth, that obliges him to swallow constantly. Nausea as from the stomach.

Smoking causes vomiting, and the customary tobacco has a nauseous taste. Aversion to all food.

Abdomen.—Flatulent colic, with griping pains in the umbilical region as though the intestines were grasped by the hands, with mucous diarrhœa.

Motion brings on the colic pain from left to right.

"Clawing griping in the abdomen, as if grasped by a hand so that each outstretched finger pressed sharply upon the intestines; relieved by rest; extremely aggravated by the slightest motion."—*Hah.*

Stools.—Stools of greenish mucus, as if fermented; worse in the evening.

"Green mucous; as green as grass; white mucous; bloody; bloody mucous; fermented."—*J. B. Bell.*

"Stools poured from him with a gush, as if forced by the wind; very offensive, exactly like yeast."—*Jahr.*

Stools of blood and mucus, with continual nausea, and great tenesmus; or stools like black, fermented, frothy molasses.

This remedy is only adapted to acute cases, and is of special use if caused from eating unripe fruit, and in first commencement of cholera infantum, with green stools.

Where the tenesmus in dysentery is great, use Ipecac by injections. In acute tropical dysentery, the bold use of large doses of from twenty to thirty grains, for a few doses, has saved thousands of lives by the old school. The purging of blood and mucus, the abdominal pain and tenesmus, soon disappear, which is often followed by copious perspiration.

The characteristic stools are mucous and green as grass; often bloody.

Urine.—Scanty, dark red, with red sediment; and, in some cases, hæmaturia.

Sexual Organs, Female.—Metrorrhagia, where it is accompanied with nausea; uterine hemorrhage.

"Continued discharge of bright red blood from the womb; they commence breathing heavily during the hemorrhage."—*Hg.*

Menses too early and too profuse; of great value in uterine hemorrhage.

"Much distress about the navel; but it runs off to the uterus, the seat of the disease."—*G.*

Respiratory Organs.—Dyspnœa, with wheezing, anxious respiration, and great weight about the præcordia; sighing, quick, anxious breathing, with much rattling of mucus.

"Suffocation threatens from constriction in the throat and chest; worse from the least motion."—*Hg.*

"Spasmodic asthma, with great constriction in the throat and chest, with which a peculiar kind of wheezing noise is heard."—*Scott.*

To arrest the paroxysms of asthma, especially in children, Ipecac is equal to any drug we have in the *Materia Medica*, when it takes on the bronchitic type, with much wheezing and cough.

The chest seems full of phlegm, but does not yield to coughing.

Incessant and moist spasmodic cough with every breath in delicate children, and great paleness of the face.

"Loses breath with the cough; turns pale in the face, and stiffens."—*Hg.*

"Phlegm rattling in chest; sometimes vomited up in children."—*Hg.*

"Especially suited to the incessant dry cough which sometimes attacks children of delicate constitution suffering from measles."—*F.*

Frequently indicated in "the sneezing of hay fever, the violent expulsive cough of pertussis, the spasmodic forms of croup, and cases of half bronchitis and half asthma."—*Hughes.*

Loose, rattling cough, with inclination to vomit, and suffocation.

"Suffocating cough, where the child becomes quite stiff and is blue in the face."—*Hah.*

The Ipecac cough has not an organic base, but is of a simple catarrhal origin, mixed up with a neurotic element; loose and spasmodic in nature, with a large accumulation of mucus in the air-passages; very apt to vomit after the paroxysm of coughing.

Hæmoptysis, with rattling cough and expectoration of blood, with a feeling of constriction in the chest. This is one of the most useful remedies in hemorrhages from the lungs.

Dr. Phillips says: "Ipecac possesses considerable energy as an arrester of hemorrhage,—a fact which is the more curious because in poisonous doses it has frequently produced hæmoptysis and other forms of bleeding. The best dose to employ is one just short of producing nausea. To produce absolute emesis is to run a great risk. In the hæmoptysis of early phthisis, Ipecac may dispute with Ergot of Rye the reputation of being the most valuable styptic we possess. In the passive hemorrhages from merely engorged bronchial mucous membrane, it is equally effective; and, in hæmatemesis and menorrhagia, it competes with Ergot of Rye."

Fever.—This is one of the most valuable remedies we have in intermittent fever where the gastric symptoms, with nausea and vomiting, predominate.

“Backache; short chill, long fever, mostly heat; with thirst, headache, nausea, cough, and sweat last.”—*Hg.*

“Chill worse in a warm room, or from external heat; lessened by drinking and in the open air.”—*Hg.*

“Heat all over, with alternate coldness and paleness of the face; cold sweat on the forehead.”—*Hg.*

Irregular cases of intermittents where the cerebro-spinal system is the part involved and the pneumogastric nerve is the special center affected, with much nausea, and with thirst.

More chill than fever, and worse during the sweat, which is sour.

Hives of gastric origin. (It has often cured them.)

Head.—Gastric headache, commencing with nausea and vomiting, worse by motion and stooping; throbbing, bruised headache, with pale face; great irritability and despondency.

Sudden anger; irascible; restless, with vertigo when walking.

Epistaxis of bright red blood; face exceedingly pale.

Aggravation.—Worse after vomiting; lying down; in winter and dry weather; catarrhs in moist, warm weather; warm room, and at night.

Amelioration.—By rest, and closing eyes, and at night.

IRIS VERSICOLOR.

Blue Flag.

Habitat: America, etc. Tincture of the fresh root, Class III.

Antidotes.—Merc., Phyt., Nux vom.

Through the abdominal sympathetic and spinal nerves, Iris has six special centers of action:

- I. SALIVARY GLANDS. *Copious Salivation, Without Fetor.*
- II. PANCREAS. *Congestion; Inflammation.*
- III. LIVER. *Congestion; Increased Biliary Secretions.*
- IV. INTEST. M. MEM. *Secretions Greatly Increased; Catharsis.*
- V. VAGI. *Nausea, Vomiting; Copious Acid Secretions.*
- VI. SKIN. *Vesicular and Pustular Eruption.*

Gastro-Intestinal Mucous Membrane and its Glandular Apparatus.—Through the pneumogastric nerve, Iris produces *excessive acidity* of the *gastro-intestinal secretions*, with violent nausea, and vomiting of an intensely sour fluid; and in this *acidity* centers the whole therapeutic range of this drug. Dr. Hale says: "Iris' *sphere of action* includes the *gastro-intestinal mucous membrane and its glandular apparatus*. It alters the secretory functions of these glands, changing the secretions to a peculiar *acid* condition resembling Pulsatilla, Robinia, Chamomilla, and Calcarea." These *acid* secretions so act upon the intestinal canal as to produce violent catharsis, with watery or green mucous stools; but the stools are principally copious and watery, and so *intensely acid* as to produce excessive burning distress over all the mucous tract these watery stools come in contact with, but principally showing itself in the rectum and anus, which burn like fire. This excessive burning, fiery feeling is also felt in the epigastrium, and is caused by inflammation of the—

Pancreas, with the excessively acid secretions. I poisoned a number of dogs and cats with the Iris; and, after death, every one of the animals had congestion and inflammation of the pancreas. Sections of the pancreas under the microscope proved the

presence of intense congestion of the minute vessels, with rupture and extravasation of blood into the tissue of the gland. The intense burning in the epigastrium is caused, mainly, by what might be called pancreatic salivation, with its excessive acid secretions.

Dr. Hughes says: "Iris has long had a reputation in America as a very active emetic and purgative, and as an excitant of the salivary and biliary secretions. Our provings, while they agree with the description, both enlarge and precisionize it. Enlarge;—for they show that the *pancreas* is irritated as much as, or more than, the salivary glands and liver. This is shown by the continual burning felt in this region by Dr. Burt,—who at the same time was passing frequent watery evacuations,—and by the highly congested state of the organ in animals poisoned by Iris. And precisionize;—for they indicate the vomiting and diarrhoea of Iris to be the result of hypersecretion along the alimentary tract, and that the morbid condition set up has little tendency to run on to inflammation. The vomiting is often acid; and the purging is accompanied by severe colic and burning in the rectum. With the salivation, there is a thick and flat, or even greasy, taste in the whole mouth, but no feter."

Salivary Glands.—Its action upon the salivary glands, producing congestion and copious salivation, is in all respects similar to that of Mercury, except that it lacks the great feter, and the destructive ulceration of the mucous membrane, that are so prominent in Mercury.

Liver.—The cholagogue action of Iris and Iridin, was the subject of experiment by Rutherford and Vignal, who say: "Five grains of Iridin, mixed with a little bile and water, and placed in the duodenum, very powerfully stimulate the liver. It is not so powerful as large doses (four grains) of Podophyllin; but it is more powerful than Euonymin; as is shown by the amount of bile secreted per kilogramme of dog; the fractions for the two Euonymin experiments being 0.4789. c. c., and 0.4678; whereas, in the Iridin experiments, they are 0.537. c. c., and 0.638. c. c. The high fraction in the second Iridin experiment probably resulted from a much smaller dog getting the same dose as in the first experiment, the smaller liver being thereby stimulated to a proportionately greater amount of work. Iridin is also a decided stimulant of the intestinal glands. Judging from these experiments, its irritant effects on the intestinal mucous membrane

are decidedly less than those of Podophyllum, while the purgative effects are greater than in the case of Euonymin."

Lymphatics.—Iris has a mild action upon this system, but not enough to place it in high rank as an anti-scorfulous and anti-syphilitic remedy. Those that place confidence in it as a curative remedy in syphilis will find themselves very much disappointed.

Skin.—On this tissue, it produces vesicular and pustular eruptions; and it has been used very successfully in pustular eruptions on the head and face (tinea, crusta lactea, eczema, and prurigo). The cerate, applied locally, has done good work for me in these affections of the scalp.

Therapeutic Individuality.

Head.—The characteristic pains of Iris are of a sharp, cutting character, of short duration, and change often.

For gastric or bilious *sick-headache*, it has no equal.

Headache in the forehead and eyes, more on the right side; with distressing nausea, and vomiting of *intensely sour* or *bilious* matter; aggravated by rest.

"Headache accompanied with violent pains over the eye, in the supra-orbital region, occurring on either side, but only on one side at a time."—*Dr. D. C. S. Middleton.*

"A tired, aching form of headache, accompanied with, or produced by, mental exhaustion."—*Dr. B. W. James.*

"Dull throbbing or shooting in right side of forehead; nausea, worse toward evening; from rest; from cold air, or coughing; better from moderate motion."—*Hg.*

Great despondency; easily vexed; can not fix the mind on anything.

Neuralgia of the head, eyes, and temples; pains cutting in nature, of short duration, with acid vomiting; bilious vomiting, or vomiting of sweetish water; great despondency.

No remedy in the *Materia Medica* is more useful for sick headache; and it is especially adapted to the form that begins with a blur before the eyes; of a gastric or hepatic origin; pains dull, heavy, or shooting, throbbing character, in forehead or right temple; accompanied with nausea, acid vomiting, or vomiting of bilious matter; aggravated by rest, cold air, or violent motion.

The headaches of Iris, as a rule, are reflex, proceeding from an *acid* stomach and an acid constitution.

Mouth.—Salivation, with profuse flow of saliva, after diphtheria, and enlarged parotids.

"Gums and tongue feel as though covered with a greasy substance."—*Lippe*.

Mouth and tongue feel as though they had been scalded.

Ulcers on the buccal mucous membrane; profuse flow of saliva.

Gastro-Intestinal Canal.—Loss of taste and appetite.

Ereptions, tasteless or *acid*.

Nausea and vomiting of sour food, the whole person smells sour.

Vomiting of food, or of bile, with burning in stomach.

Great burning distress in the epigastrium; can hardly endure it.

Great burning in the epigastrium, at the same time the mucous membrane of the mouth burns like fire.

Burning distress in the stomach and pancreas, with watery diarrhœa and great prostration.

Much inflammation of the pancreas, or pancreatic salivation.

Violent pains in the bowels, before vomiting or diarrhœa.

Cutting pains in region of liver (right hypochondrium), worse from motion.

"Colicky pains, intermittent, about the navel, before vomiting or diarrhœa."—*Hg*.

Watery diarrhœa, worse at night, with great debility.

Watery diarrhœa, with intense burning of the anus. This burning of the rectum and anus is caused from the excessively acid stools.

Cholera morbus, with vomiting; grumbling pains in the bowels, and watery diarrhœa, and in children green stools.

In colic, or, as Dr. Kitchen has it, "grumbling belly-ache," it is of great utility; also in acute mucous enteritis.

"Stools *watery*; mixed with mucus; bloody mucus; thin, yellow, fecal; *greenish*; undigested; *frequent*; *corrosive*; *profuse*."—*J. B. Bell*.

Great burning in the anus as if on fire after stool.

Urine.—Very high-colored and scanty urine.

Copious watery urine in nervous headache.

Acid urine, excoriating the urethra.

Sexual Organs, Male.—Nocturnal emissions, with amorous dreams; coldness and relaxation of the scrotum.

This excitement of the generative organs is reflex from an *excessively acid stomach*.

Sexual Organs, Female.—Pregnancy, with excessively acid vomiting, and burning in the stomach, cesophagus, and mouth; and, in some cases, copious salivation.

Skin.—In pustular skin diseases, especially if located upon the scalp and face (*crusta lactea*, and *eczema*).

In *crusta lactea* and *tinea capitis*, a cerate locally and the attenuations internally have cured many cases.

"Irregular patches on knees, elbows, and body; edges slightly raised; or herpes zoster."—*Hg.*

Fever.—Chill, followed by heat; hands and feet cold, with sweat over the whole body; chills predominate.

Limbs.—Sharp, tensive pains in right shoulder, worse on motion. Many shooting, shifting pains in the wrists and hands.

Tensive, momentary, and constantly recurring pains in all the joints, but mostly in the smaller.

"Sciatic pains, as if the left hip-joint were wrenched."—*Wesselhoeft*.

"Pain and lameness extending to the popliteal space."—*Wesselhoeft*.

The rheumatic or neuralgic pains of Iris are sharp, coming on suddenly and leaving suddenly, like those of Belladonna.

Aggravation.—In evening and night, from rest and excessive motion.

Amelioration.—Gentle motion, and warmth.

JABORANDI.

Pilocarpus Pinnatus.

Habitat: South America, etc. Tincture of dried or fresh leaves and root, Class III.

Through the cerebro-spinal nervous system, Jaborandi has ten special centers of action:

- I. GLANDULAR SYSTEM. *Salivation and Copious Perspiration.*
- II. MAMMÆ. *Galactagogue.*
- III. KIDNEYS. *Diminished Urea.* BLADDER. *Contracted.*
- IV. STOMACH. *Gastric Juice Incr'd.* LIVER. *Secret'ns Lessened.*
- V. CIRCULATION. *Excited, with Lessened Blood-Pressure.*
- VI. HEART. *Inhibitory Nerve Centers Paralyzed.*
- VII. TEMPERATURE. (1) *Elevated;* (2) *Greatly Depressed.*
- VIII. EYES. *Pupil Contracted; Increased Intra-Ocular Pressure.*
- IX. UTERUS. *Slight Uterine Stimulant.*
- X. SEROUS MEMBRANES. *Dropsical Effusions.*

Glandular System.—The two most marked physiological effects of Jaborandi are sweating and salivation. These effects are produced with a promptness and to a degree unequalled by any other known drug. Prof. H. C. Wood says: "When an infusion of from sixty to ninety grains of Jaborandi is given to an adult, in about ten minutes the face and neck become deeply flushed, and free perspiration and salivation commence. After a hypodermic injection of the Alkaloid, the symptoms commence in from two to six minutes. The sweating begins on the face; both it and the salivation are excessively profuse, and last from three to five hours. There is not rarely nausea, and sometimes even vomiting. The pulse is usually more or less quickened, as is also frequently the respiration. After the sweating has ceased, the patient is left more or less exhausted. The nasal and lachrymal secretions are also very generally increased, and M. Gubler has noted diarrhœa. . . .

"The sweat produced by Jaborandi is often enormous in quantity (nine to fifteen ounces by estimation). It is stated to be first

acid, then neutral, and finally often clearly alkaline. In the analysis of M. Robin, the chlorides were found in excess, the carbonates and phosphates in very minute amount, and the urea in more than five times its normal proportion, the amount eliminated in the sweating being estimated at from ten to fifteen grains. M. M. Hardy and Ball believed that in their experiments the average amount of urea eliminated by the skin was seventeen grains."

The abundant perspiration is apparently not due to increased afflux of blood to the surface, but rather to a paralysis of the inhibitory influence of that portion of the nervous system that presides over the sudatory apparatus. "Dr. Fuchsinger (confirmed by Nawrocki) has found that section of the nerves of the cat's leg did not prevent the paws from sweating when Jaborandi was exhibited. This demonstrates that the action of the drug is peripheral, not centric. Five or six days after the section, when the peripheral nerve endings had undergone degeneration, Fuchsinger found that Jaborandi was unable to excite sweating. This can, however, hardly be considered to absolutely prove, as Fuchsinger claims, that the drug acts upon the peripheral nerve endings, and not directly upon the glandular cells themselves; since it is possible that these glandular cells shared the anatomical changes of the nerve-endings."—Wood.

Dr. Bartholow says Jaborandi probably affects the end organs of the excito-secretory nerves.

The Muriate of Pilocarpin injected hypodermically, in doses of one-fifth of a grain, produces the same effects identically with those of Jaborandi taken internally; but the effects of Pilocarpin are more promptly produced and much more lasting; and, when sweating fails to take place under the operations of Jaborandi, it is invariably excited by Pilocarpin; and it is less apt to produce vomiting. It has also produced cold on the left side of the body.

Salivary Glands.—When the patient begins to sweat, his mouth begins to water, and the flow of saliva is so rapid and so copious that he is unable to speak; and, during the hour or two that the secretion lasts, there is often one quart of saliva secreted. Dr. H. C. Wood says: "There appears to be some relation between the flow of saliva and that of perspiration produced by Jaborandi; if the one is very profuse, the other is often, but not always, correspondingly scanty. Sometimes the salivation almost replaces the sweating; very frequently it commences before the sweating, and often it is more persistent. During the salivation, the mouth is warm, and there is often a feeling of tenseness about the maxillary glands. The saliva contains an abundance

of salts and of ptyaline, as well as a small excess of urea. It is stated, however, that the proportion of albuminous compounds, and especially of sulphocyanide of potassium, is much diminished, the latter, indeed, being almost wanting (Pilicier). The free salivary secretion appears to be due to a direct action upon the gland or its nerve-peripheries. According to J. N. Langley, in the frog, the mouth and skin, after the exhibition of Jaborandi, become covered with a viscid secretion; in the dog, rabbit, and cat, there is profuse salivation. The effect upon the salivary secretion must be due to a direct influence upon the gland, as it is produced equally well after section of all the salivary nerves (confirmed by Schwan); also when the drug is injected directly into the gland and prevented from entering the general circulation (Langley). According to the elaborate experiments of Langley, very small doses cause in the cat great increase of secretion. Stimulation either of the chorda or of the sympathetic nerve causes respectively some increase or lessening of the secretion; but this increase or lessening is not nearly equal to that which occurs in the normal animal, and is due to the action of the nerves upon the circulation, and not to any influence of their secretory fibers. Very large doses of the drug injected into the gland immediately arrest the secretion, and paralyze both chorda tympani and sympathetic nerves, so that stimulation of them has no effect. It is, probably, from the last fact, that Jaborandi has an action upon the gland-cells themselves.

"Although the evidence just adduced indicates that an influence is exerted by Jaborandi upon the gland-cells, the fact that Atropia arrests the Jaborandi salivation prevents us from considering it settled that the drug does so act upon the salivary gland cells rather than upon the peripheral nerves, especially since there is reason for believing that the sweating which the drug causes is due to an action on the peripheral nerves."

Mammæ.—This remedy greatly promotes the secretion of milk, and may be called a true galactagogue. One would think, from its causing such profuse discharges from the skin and salivary glands, that the secretion of milk would be arrested instead of increased. Dr. Ringer has used Jaborandi with success to *increase the secretion of milk*; and Dr. Bartholow says he has used a fluid extract of this drug successfully in a case of deficiency in the secretion of milk of a nursing woman.

Kidneys.—The action of Jaborandi upon these organs is not yet understood. M. Gubler states that Jaborandi, given in small

and repeated doses, acts as a diuretic; but usually the urine, I believe, is not increased, and the urea is greatly diminished.

Dr. Ringer says: "In many cases, Jaborandi produces pain, often severe, over the pubes, with a distressing, irresistible desire to pass water, the pain at once subsiding on emptying the bladder." As the quantity of urine is not increased, it is probable that Jaborandi excites contraction of the bladder.

Heart and Circulation.—"In the human subject, Jaborandi always quickens the pulse, my original assertion on this point having been subsequently abundantly confirmed. Strange to say, Mr. Langley finds that it slows the heart of warm-blooded animals and frogs. As regards frogs, I have repeatedly verified this statement. The pulse is increased in man from forty to fifty beats, the accelerated rate continuing more than four hours; at the same time the pulse is weaker. Jaborandi slows, and at last arrests, the heart of frogs, whether injected under the skin or applied directly to the heart. The heart stops in wide diastole. If, when the heart is greatly slowed, or even stopped, a minute quantity of Atropia is directly applied, the heart soon begins to beat again, and, ultimately, quite or almost recovers from the effect of the Pilocarpin. Mr. Langley's experiments lead him to conclude that Jaborandi slows and arrests the heart by stimulating the same apparatus that Atropia paralyzes, and so quickens the heart, namely, the intra-cardiac inhibitory apparatus."—*Ringer*.

Wood says: "Full doses of Jaborandi paralyze the cardiac inhibitory nerves. The final arrest of the heart, which occurs in diastole, is preceded by very irregular action. According to Langley, the ventricles always stop first. The fall of arterial pressure is probably in part independent of the cardiac slowing, as Langley has found that it precedes the latter when the drug is very slowly injected. The exact influence of the drug upon the vaso-motor system, however, still needs elucidating."

Bartholow says: "The action of the heart is increased by Jaborandi; but the arterial tension is notably diminished. The rise in the pulse-rate averages 20 beats; and the duration of this effect is about two and a half hours. A very distinct fall of temperature (0.5° to 2° F.) ensues when the sweating begins, and this decline of bodily heat is maintained, on an average, about four and a half hours."

Temperature.—The action of this drug upon the temperature is well marked. "M. Robin affirms, that, before and during the

early stages of the sweating from Jaborandi, the temperature rises 1° to 2° F., but afterward falls as much below the normal point, and remains depressed for one or two days. This primary rise of temperature has been noted by other observers (Ringer, Greene, Scotti, Pilicier and Weber), but is certainly frequently absent altogether, or very trifling. The subsequent fall of temperature seems to be a very constant phenomenon when the action of the drug is sufficiently severe; it probably depends in great part, or altogether, upon the loss of heat during the sweating."—*Wood*.

Dr. Ringer also thinks, there is no doubt that the fall in temperature is due to the perspiration, heat being lost by increased evaporation and radiation, more blood being probably sent to the skin during the sweating period.

Digestive Organs.—The profuse salivation has already been fully noted. Through a fistula in a dog's stomach, it has been noted that Jaborandi greatly increases the secretions of the stomach, and the biliary secretion appeared to be lessened. Through its action upon the vagi, it not unfrequently excites nausea and vomiting. This sickness can be accounted for, at least in part, from the large quantity of saliva swallowed. Often the vomited matter consists solely of saliva. In some few cases, it has produced diarrhoea; but, as a rule, the bowels are not affected by Jaborandi; when they are, the stools are copious and watery.

Cerebro-Spinal System.—This drug is a feeble narcotic, as shown by stupor. This drowsiness is probably not due to a direct action of the remedy on the cerebrum, but to the greatly diminished vascular tonus, and to the loss of fluid from the vessels. It often produces frontal headache, with vertigo.

Motor System.—"In man, muscular tremblings have been observed during the action of Jaborandi; but it is doubtful whether they are due to a direct action of the remedy. In the frog, there seems to be a very slow loss of reflex activity. On the whole, the evidence points to the drug as having very little influence over the muscular or motor nervous system."—*H. C. Wood*.

Eyes.—The action of Pilocarpin upon the eye is strongly marked and of great value to the oculist. "When applied to the eye, Pilocarpin produces great contraction of the pupil, tension of the accommodative apparatus, and an approximation of the nearest and farthest points of distinct vision. Mr. Tweedy states,

that there is impairment of vision, due to benumbing of the retina. Galezowski, who uses a solution of one part of Pilocarpia salt in fifty parts of water, affirms that it answers as well as a solution of Eserina in diseases of the eye, and has the great advantage of not producing irritation."—*Wood*.

"No characteristic or constant changes in the fundus of the eye have been observed on ophthalmoscopic examination. The eye resumes its normal state in about an hour and a half."—*Tweedy*.

The lachrymal secretion is increased, and also that of the nasal mucous membrane.

Dr. M. Lundersberg says: "Pilocarpin has favorably influenced the absorption of intra-ocular hemorrhages, and opacities of the vitreous and aqueous humors, in a more reliable and effective manner than any other absorbent remedy known up to the present time."

Scalp.—Dr. Schmitz made hypodermic injections of Pilocarpin in two ophthalmic cases, on account of its power of absorbing morbid products, and witnessed in both cases a fresh growth of young hair in persons who had been bald for years.

Uterus.—Many physicians believe that Pilocarpin has decided abortifacient powers, from several cases of abortion produced in pregnant animals by the use of hypodermic injections; but this physiological fact has yet to be proved. "The subcutaneous injection of the Hydrochlorate of Pilocarpin, made during pregnancy, excites the uterus to contract. If the injection be given in the first stage of labor, it stimulates uterine contraction. In cases of normal labor, where uterine contractions are not strong enough, this drug may be given successfully."—*London Lancet*.

Lungs.—Through the vagi, the bronchial mucous membrane is stimulated to increased secretion.

Jaborandi does not act on children with the same power that it does on adults; consequently they require larger doses.

Therapeutic Individuality.

Chest.—The most useful sphere of Pilocarpin is found in dropsical effusions, especially of the pleura and lungs. Many cases of local dropsy have been reported cured by this remedy.

"It is a remedy of great value in cardiac dropsy; its therapeutic power being much the same as the vapor or hot-air bath, by promoting free diaphoresis."—*Bartholow*.

"Ascites, hydrothorax and pleuritic effusions have been quickly removed by this agent."—*Bartholow*.

"In asthma (humid) with profuse expectoration, and in bronchitis with abundant non-purulent expectoration, it has often been very beneficial."—*Bartholow*.

Pain in the chest of a stitching character.

Heart's action irregular, intermittent, and increased.

Urinary Organs.—In renal dropsy, after scarlatina, or Bright's disease, Pilocarpia has acted well.

In diabetes insipidus, Pilocarpia has reduced the secretion of urine one-half; and two cases have been reported cured.

Sexual Organs, Female.—Dr. Bidder (in the *Medical Times and Gazette*) has seen most favorable results follow the use of Pilocarpin in cases of marked œdema in pregnancy, while prescribing it for patients suffering from œdema of the face, labia, and extremities; he has never seen uterine pains excited by its use, although the œdema very rapidly subsided.

Dr. Sanger has reported three cases of puerperal convulsions cured with hypodermic injections of Pilocarpin; but, almost immediately after the injection, there were symptoms of marked suffocation, the patient, in her stupor, being unable to swallow the great secretion of saliva. In nursing women, where the secretion of milk has been very deficient, Dr. Bartholow has used the fluid extract with complete success; and Dr. Ringer has used it successfully in galactorrhœa.

Many physicians have used it successfully to stimulate uterine contractions.

From its power of causing flushing of the face and exciting the pulse; from the gone feeling in the abdomen and profuse sweating and nervous restlessness,—I predict that it will rival Lachesis in the flushings of women at the climacteric.

Skin.—It must prove our sheet-anchor in profuse night sweats. Dr. Ringer has cured several cases of unilateral sweating, using it hypodermically.

"Pilocarpia, in doses of one-tenth of a grain, given thrice daily, will cure profuse night sweats."—*Ringer*.

In secondary syphilis, and ichthyosis, it has acted well. Dr. Phillips suggests that the Iodohydrargyrate of Pilocarpia be used in secondary syphilis.

Prurigo is greatly palliated and often cured by the use of this drug if given strong enough to produce copious perspiration.

One-sixth of a grain of **Pilocarpin** is generally strong enough. In many skin diseases, as a palliative to soften up the tissues, it is invaluable. Prof. Hebra has great confidence in Pilocarpin in skin diseases.

Scalp.—Prof. Peck cured ten cases of alopecia out of fourteen cases.

I believe, that the hypodermic use of Pilocarpin, in many cases of baldness, will completely restore the hair, from its wonderful action upon the skin.

Digestive Organs.—For salivation from diphtheria, no remedy known to man can equal it, the profuse flow of saliva being dried up in a few hours, almost as rapidly as if the gland was a sponge filled with water, and you had used your hand to squeeze the water out; and I presume it will do the same for Mercurial salivation.

For mumps, it must prove a specific.

Loss of appetite, with bitter taste.

Empty, gone feeling in the bowels.

Thin, watery, copious diarrhoea, with slight nausea.

Fever.—In intermittent fever, this remedy is making many cures. One-fifth to one-tenth of a grain produces copious perspiration in a few minutes, and arrests the chill at once.

KALI BICHROMICUM.

Bichromate of Potash.

Chemical preparation. Triturations, Aqueous solution.

Antidotes.—Vegetable acids, Demulcents, Ars., Lach., Puls., Hyd.

Through the organic nervous system, this drug has five special centers of action :

- I. MUCOUS M. *Copious Viscid, Ropy Mucorrhœa; Ulceration.*
- II. LIVER. *Congestion; Hypertrophy; Fatty Degeneration.*
- III. KIDNEYS. *Tubular Inflammation; Ulceration; Albuminuria.*
- IV. SKIN. *Pustular Inflammation.*
- V. FIBROUS T., PERIOSTEUM. *Acute Inflammation; Hypertrophy.*

Mucous Membranes.—This remedy has a powerful and peculiar effect upon the mucous membranes, affecting more especially those portions which are covered with columnar epithelium; these are found in the nares (excepting that portion to which is distributed the olfactory), larynx, trachea, body of the uterus, and Fallopian tubes. It so changes the functions of the mucous follicles as to cause them to secrete a *tough, viscid, ropy mucus*, capable of being drawn out into fine threads two or three feet long.

Dr. R. Hughes says: "The action of Kali bichromicum on the mucous membrane is as marked as that of Arsenic or Tartar emetic. It causes a morbid increase in the quantity of mucus formed, which mucus sometimes is tough and stringy, and sometimes degenerates into pus. Higher grades of the inflammatory process are seen in the respiratory mucous membrane, and (when the poison has been swallowed) along the alimentary tract. In the former region, false membranes have been formed; in the latter, the tendency is toward ulceration. The portions of the mucous tracts chiefly affected are the mouth, throat, cardiac portion of the stomach, duodenum, jejunum, and rectum; and the whole respiratory mucous membrane, including the conjunctiva. These toxicological actions are well pictured in the physiological provings. The provers have sore and injected fauces; sour eruc-

tations, and heartburn; slow digestion; bitter taste; nausea and vomiting; with thickly coated tongue; dysenteric purging; coryza, hoarseness, and cough.

"In chronic catarrh and ulceration of the alimentary mucous membrane, Kali bichromicum is often our very best medicine. The common chronic ulcer of the pharynx rapidly heals under its action. I agree also with Drs. Walzke and Russell in rating it very highly as a remedy for syphilitic sore throat. It will not, I believe, arrest the destructive ulceration sometimes set up (requiring Mercury or Iodine), but will subdue chronic inflammation and heal up superficial ulcers very effectually. Then, it is very useful in dyspepsia and vomiting, from chronic gastric catarrh, where the tongue has a thick yellowish coat, differing herein from the white coat of Antimonium crudum. Mr. Clifton has contributed some valuable indications for the medicine here. He agrees with Dr. Lippe, that it is especially useful in the dyspepsia of beer-drinkers, and where *weight* (not pain) is complained of after food. He notes, that, under the rough yellow fur of the tongue, the surface of the organ is red; and he confirms the general experience of alternation of gastric sufferings with rheumatism being characteristic of the drug. Kali bichromicum is hardly less useful in healing the round ulcer of the stomach, and those of the duodenum resulting from burns; and, in chronic diarrhœa from intestinal ulceration, it vies with Mercury, and has effected some brilliant cures."

Air-Passages.—"Still more striking is the power of this remedy in affections of the respiratory mucous membrane. In acute coryza, and in catarrh of the larynx, trachea, and bronchi, such as occurs in influenza, it is often rapidly curative; especially (I think) when the digestive mucous membrane is simultaneously affected. There is also a large accumulation of evidence tending to show that it is a potent remedy for true membranous croup, whether diphtheritic or apparently primary. [To me, no known remedy equals it for true membranous croup.] I can not yet compare it with Iodine and Bromine here. It is, however, more especially in the chronic affections of the respiratory tract that Kali bichromicum is efficacious. The great indication for it in these is the *tough, tenacious, glutinous* character of the expectoration, which may often be drawn out in long strings. Dr. Meyhoffer esteems it highly in chronic laryngeal catarrh, and when bronchitis lingers long in a sub-acute condition. He administers it by inhalation as well as internally. It might be useful in ulceration of the larynx, syphilitic or simple.

"The lining membrane of the nose, and its offset to the eyes, is therapeutically, as well as physiologically, a special seat of the action of Kali bichromicum. It is very good for chronic coryza, where the discharge is thick, yellow, and glutinous, and the nose tender. Used locally, it has cured polypus narium in many instances. It is worthy of trial in ozæna after the same manner. The internal use of the drug alone I have never seen curative of this disease; though Mr. Lord found it very successful in horses, with which it is of frequent occurrence. In acute glanders affecting horses, Mr. More has found it curative; and the suppurating nostrils and pustular skin of the disease plainly indicate it. In the sphere of the eyes, Kali bichromicum stands high among the remedies for catarrhal and strumous ophthalmia; and its action on the fibrous structures has enabled it to cure even rheumatic and syphilitic inflammation of the ball. It is especially useful in catarrhal rheumatic inflammation of the ball."—*Hughes*.

Glandular System.—"The glands chiefly affected by Kali bichromicum are the liver and the kidneys. On the liver, its action is very marked. Here is a group of symptoms occurring in one prover: 'Achings for some days in the right hypochondrium; scanty, pale, clay-colored stools, sometimes twice a day; metallic taste; fetid breath, and confusion of the head.' In animals poisoned by it, the liver is found congested, enlarged, friable, of a dark reddish-brown color, but presenting on its surface whitish-yellow spots extending into its substance, of soft consistence, and slightly depressed."—*Dr. R. Hughes*.

Kidneys.—On the kidneys, this drug has a specific and profound action, producing intense congestion and inflammation of the tubular portion, and complete destruction, so that the tubular portion can not be distinguished from the rest, with purulent urine, or urine altogether suppressed. It has been of great utility in suppression of the urine from Asiatic cholera, and in catarrh of the kidneys. Its full physiological action upon the kidneys has not yet been fully learned.

Skin.—Upon the skin, Kali bichromicum causes papules, pustules, and ulcers. The ulcers have hard bases, with deep, dry edges. Dr. Drysdale says: "The resemblance in many respects between the action of this medicine and that of the syphilitic virus, and also its analogy to Mercury, would lead us to hope that we may find in it another remedy for that disease. Though we would not place any weight on such a merely superficial

resemblance, yet we can not refrain from noticing the likeness that the chronic ulcer when healed presents to the indurated chancre. A more correct way of judging of the resemblance is in the further development of the constitutional symptoms. We have in this remedy the rash on the skin; then the sore throat, which has been mistaken for syphilitic; then the periosteal pains; then the rheumatism; and, lastly, the diseases of the skin, chiefly of the pustular kind, which have the hard, dark scab, and leave the depressed cicatrix." Experience has confirmed this hope, in affections of the throat, eye, skin, and periosteum.

Fibrous Tissue.—Upon the fibrous tissue about the joints and the periosteum, Kali bichromicum has a marked and powerful influence. It also affects the cartilages, especially that of the nose, which it has entirely destroyed. "The fibrous tissues are much irritated, as shown by the marked tearing pains experienced by the provers, especially about the joints. Still more striking is the effect upon the periosteum, which manifests not only pain at certain spots, but its characteristic hard swellings. These symptoms are observed especially in the parietal, malar, and maxillary bones, and in the tibia. I see no evidence that Kali bichromicum influences the bones themselves; but its carious effects upon the nasal septum show a decided power of destroying the cartilages. Dr. Drysdale thus describes what happens to the workers in chrome: 'For the first days, there is discharge of clear water from the nose, with sneezing; chiefly on going into the open air; then soreness and redness of the nose, with sensation of a fetid smell. Then they have great pain and tenderness, most at the junction of the cartilage, and the septum ulcerates quite through, while the nose becomes obstructed by the repeated formation of hard, elastic plugs (called by the workmen clinkers). Finally, the membrane loses its sensibility and remains dry, with the septum gone, and frequently loss of smell for years.'"—*Hughes.*

"The rheumatoid pains induced by Kali bichromicum are so numerous and characteristic, that it can hardly fail to take its place as a remedy for rheumatic affections (as rheumatic headache, lumbago, sciatica, and periostitis). Experience has here also confirmed the indications of pathogenesis. It is especially on the middle ground between rheumatism and syphilis—in periosteal and syphilitic rheumatism—that Kali bichromicum plays so distinguished a part. It will be seen, however, that its action is by no means limited to cases such as this. The rheumatism call-

ing for Kali bichromicum is chronic, and of the 'cold' variety."—*Dr. R. Hughes.*

Therapeutic Individuality.

Kali bichromicum is especially adapted to fat, light-haired people, and to scrofulous, catarrhal, and syphilitic diseases.

Discharges from the nose, mouth, throat, stomach, vagina, uterus, or any of the mucous membranes, of a tough, stringy mucus, which sticks to the parts and can be drawn out into strings three feet long.

Respiratory Organs.—Cough, with expectoration of tough, stringy mucus, which sticks to the throat, mouth, and lips; the cough is choking and croupy; worse in the morning; voice rough and hoarse.

In chronic hoarseness in laryngitis, it is one of our most useful remedies; loose rattling cough; complete aphonia.

In true membranous croup or diphtheritic croup, this is our best remedy.

It is especially useful in chronic bronchitis, with tough, stringy expectoration, and burning pain in the trachea and bronchi. It is also of great value in acute capillary bronchitis.

"Chronic bronchitis, chronic laryngitis, and coughs characterized by the presence of thick, tenacious mucus, with dyspnoea and difficult expectoration, are often well met by the 3d or 6th decimal dilution."—*Dr. Bayes.*

"Cough, with dyspnoea, especially in morning, with expectoration of white mucus 'as tough as pitch,' and which could be drawn out into strings."—*Drysdale.* [In seventy individuals in chrome works.]

"Frequent hawking and expectoration of tenacious, yellowish-white mucus, which accumulates in large quantities in the air-passages, followed by relief of the hoarseness."—*Lackner.*

Morning dyspnoea, with a moist, wheezing, stuffy cough.

"Dyspnoea; wheezing and panting; with tightness at bifurcation of bronchia; as if mucous membrane was thickened."—*Hg.*

"Cough, hoarse, metallic; false membrane formed; difficult to detach, with expectoration of stringy mucus; coughs up casts of elastic, fibrinous nature; loud mucous rales; wheezing, rattling in sleep."—*Dr. A. C. Cowperthwaite.*

"Cough worse undressing; morning on awakening; after eating; deep inspiration; better after getting warm in bed."—*Hg.*

"Itching behind the sternum, which caused violent, racking, paroxysmal cough."—*Dr. H. N. Martin.*

"Membranous croup and diphtheritic croup, invading larynx, trachea, and even the bronchi; voice hoarse, uncertain, cough hoarse, metallic; deglutition painful; tonsils red, swollen, covered with false membrane difficult to detach, with expectoration of tough, stringy mucus; coughs up casts of elastic, fibrinous nature; loud mucous rales; wheezing rattling in sleep; insidious approach; fat, chubby, light-haired children."—*Hg.*

Tedious cases of sub-acute and chronic cough, where the large bronchi, trachea, larynx, and fauces are involved, with a smooth or follicular inflammatory redness of the pharynx and fauces; the cough appears loose; but expectoration is very difficult, and of a sticky, ropy character.

Nose.—"Septum narium completely ulcerated away, and the whole nasal mucous membrane in a state of purulent inflammation." [Effects on workmen.]

The whole nasal mucous membrane dotted with small ulcers, and excessive fetor of breath; syphilitic ozæna.

"Discharge of tough, green masses, or hard plugs."—*Hg.*

"Coryza fluent, excoriating nose and lip; nostrils sensitive, ulcerated; round ulcers or scabs on the septum."—*Hg.*

"Coryza, with pressure and tightness at the root of the nose; worse evenings and in the open air."—*Hg.*

"Sneezing, from tickling, as from a hair high up in the nostril."—*Hg.*

"Great dryness of the nose, with a feeling of pressure in nasal bone."—*Hg.*

"Sensation as if the nose were swollen and stiff; must blow out a thick substance, but no discharge; feels as if a heavy weight were hanging from it."—*Cowperthwaite.*

Caries of the nasal bones, with great fetor of the discharges.

Perfect loss of smell, in tertiary syphilis.

Breath excessively fetid; chronic nasal catarrh.

"For chronic cold in the head, there is no medicine like it."—*Dr. R. Hughes.* [Old atonic catarrh.]

"Pseudo-membranous lesions of a diphtheritic nature; affecting the respiratory mucous surfaces, the nares, superior portion of the pharynx, larynx, trachea, and bronchial tubes; the deposits are firm in texture, apt to be developed into casts, which are cartilaginous or pearly in appearance, elastic, fibrinous, and more securely attached to the subjacent integument."—*Dr. R. Ludlam.*

Digestive Organs.—Tongue coated with a thick yellow felt.

Tongue smooth, red, and cracked (Bell., Rhus); dry and red; ulcerated; mouth very dry; hawking up much tenacious mucus.

"Tongue broad, or with scalloped edges."—*Hg.*

Taste strongly of copper; or bitter; saliva viscid.

Great dryness of the mouth and lips, must drink water.

Much saliva that is very viscid, can be drawn out into long strings.

Chronic inflammation and ulceration of the pharynx, especially of a syphilitic origin, tertiary stage.

Chronic catarrhal and strumous inflammation of the fauces, with hawking of much thick, tenacious mucus in the morning.

"Ulcers in the fauces and pharynx, discharging cheesy lumps of offensive smell."—*Hg.* [From syphilis or scrofula.]

"Posterior wall of the pharynx is dark red, glossy, puffed, showing ramifications of pale red vessels."—*Hg.*

"Soft palate reddened; uvula relaxed, with sensation of a plug in the throat; not relieved by swallowing."—*Hg.*

"Burning in the pharynx extending to the stomach; solids cause pain when swallowed, and leave a sensation of something remaining there."—*Hg.* [Similar to Lachesis.]

Loss of appetite; longs for beer and acids.

Food lies on the stomach like a load; digestion suspended.

Gastric catarrh with acid vomiting; sudden dyspepsia while eating.

Ulceration of the stomach and duodenum.

Much swelling of the stomach, can not bear tight clothing.

"Feeling of coldness in the stomach and bowels."—*Hg.*

Aching, stitching pains in the right hypochondrium.

"Dull pains in the right hypochondrium, especially when limited to a small spot, with whitish stools."—*Hughes.*

"In chronic intestinal ulceration, it vies with Mercury."—*Hughes.*

Stools.—Stools of mucus and blood, or pure blood; brown, frothy water.

"Stools, blackish, watery; brownish, frothy, watery; bloody; jelly-like; frequent, gushing out like water."—*J. B. Bell.*

"Stools in the morning with great urging."—*J. B. Bell.*

The great desire for stool awakens the patient in the morning; and morning jelly-like stools are most characteristic.

Urine.—Painful urging to urinate.

"Scanty, high-colored urine, with copious white sediment, and pain in the back."—*Hg.*

Suppression of urine, with much pain in the renal region.

Scanty urging, with mucous sediment.

Sexual Organs, Male.—Absence of sexual desire, in fleshy people.

"Gleet with stringy, or jelly-like, profuse discharge."—*Hg.*

"Chancres ulcerating deeply." [Locally and internally.]

Chronic prostatitis; prostatic fluid escapes at stool.

Sexual Organs, Female.—Yellow, ropy leucorrhœa, that can be drawn out into long strings.

"Menses too soon" (G.), with headache and vertigo.

Vulva swollen, the vagina is raw and sore; chronic eczema.

"Prolapsus uteri, seemingly caused by hot weather."—*G.*

Skin.—In pustular diseases of the skin, it will be found of great value, used locally and internally.

Ulcers deep as if cut out with a punch; cicatrix remains depressed; papular eruptions on fore-arms.

"Small pustules on the roots of the nails; spreading over hands to wrist; arm red, axillary glands suppurate; small pustules on the hands secrete a watery fluid when broken; if not touched, fluid thickens into a yellow, tough mass."—*Hg.*

Skin hot, dry, red, with burning, stinging pains.

Papular eruptions, especially on the arms; scabs smart and burn; worse in hot, better in cold, weather.

Head.—Listlessness; great disinclination for mental or bodily labor.

Indifferent; low-spirited, and ill-humor; tertiary syphilis.

Vertigo and headache, from acid stomach.

"Blindness followed by violent headache, must lie down; aversion to light and noise; sight returns with increasing headache."—*Hg.*

Rheumatic headache; bones of the head feel sore.

Vertigo, with nausea from indigestion.

Eyes.—Conjunctiva inflamed; much secretion of mucus, with burning distress in the eye.

"Indolent ulcers around the cornea; pale ring around the cornea."—*Hg.*

"It is of special importance in chronic indolent forms of inflammation of the eye, particularly of ulcers and pustules.

on the cornea, in which no active inflammation is present, with but little redness, and no photophobia, and with but little or no pain; the secretion of a *stringy* character. Rheumatic scleritis in a syphilitic subject is reported cured by Dr. Drysdale."—*Drs. A. and N.*

Generalities.—"Chronic rheumatism of a cold variety."—*Dr. Hughes.* [Bones feel sore and bruised.]

"Periosteal and syphilitic rheumatism."—*Dr. Hughes.*

Bones feel bruised, with cracking in the joints from motion.

Rheumatism of the limbs, especially in the joints.

Tearing pains in the tibia, from tertiary syphilis.

"Pain in the tendons of the muscles of the calf, as if stretched, causing lameness."—*Hg.* [Pains fly rapidly from one part to another.]

All the limbs stiff, with shooting pains, worse in the morning.

Aggravation.—In the morning; after eating, and from cold.

Amelioration.—In the evening, and from heat.

KALI BROMIDUM.

Bromide of Potassium.

Chemical Preparation. Trituration and Aqueous Solution.

Antidotes.—Vegetable Acids, Oleaginous Mixtures, Camph., Zinc, Nux vom.

Through the cerebro-spinal nervous system, reaching over into the sympathetic, Kali bromidum has eleven special centers of action:

- I. BROMISM. *Atrophy from Diminished Blood-Supply.*
- II. CEREBRO-SPINAL S. *Sensory and Motor Paral.; Anæsthesia.*
- III. HEART. *Less. Blood-Pressure; Arterial Paral.; Puls. Less.*
- IV. CIRCULATION. *Vaso-Motor Arterial Capillary Spasms.*
- V. TEMPERATURE. *Greatly Lessened.*
- VI. GLANDULAR SYSTEM. *Secretions Diminished.*
- VII. SEXUAL O. *Paralysis, from Diminished Blood-Supply.*
- VIII. MUCOUS MEMBRANES. *Anæsthesia, Especially Throat.*
- IX. SKIN. *Anæsthesia; Acne; Pustules; Boils; Papules.*
- X. MUSCULAR SYSTEM. *Spasms; Paralysis.*
- XI. KIDNEYS. *Congestion; Elimination.*

Bromism.—The prolonged administration of the Bromides, especially the Bromide of Potassium, produces a peculiar state of the system to which the term *Bromism* is applied. "This condition of chronic poisoning differs from the effects of a few medicinal doses in the extent and intensity, but not in the character, of the symptoms. From one to three drachms daily produce extreme pallor and anæmia, dilated pupils, acne on the face, forehead, and shoulders; a fetid Bromine breath; slow and feeble action of the heart; breathlessness, and quickened pulse on slight exertion; cool hands and feet, a general subjective sensation of coldness; movements in walking tremulous and uncertain; diminution of the tactile sensibility of both cutaneous and mucous surfaces; fauces dry, and the reflex movements sluggish; swallowing somewhat difficult; antaphrodisia and complete relaxation of the genitals; mind weak, manifested in silly conduct and unmeaning laughter.

"Various mental symptoms are in some subjects produced by the long-continued use of the Bromides. Weakness of mind, without perversion of intellect, is a very constant result of the continued use of large doses. Headache, confusion of mind, and a sort of intoxication had long ago been observed to follow the use of Bromide of Potash in even moderate doses (Puche). A form of mental derangement, with hallucinations of a melancholic character, has been observed by Hammond and others.

"The pallor and anæmia of Bromism are due to several causes; to the diminished action of the heart; slowness of the capillary circulation, and consequent interference in the metamorphosis of tissue; derangement of digestion and assimilation in consequence of gastric catarrh; and diminished blood supply to the cerebro-spinal axis. The disorders of voluntary movement, the uncertain gait, the apparent defects of co-ordination, are variously explained; but they are doubtless made up of several factors, of which the cutaneous anæsthesia is the most influential. The Bromides possess the power to destroy or impair the irritability of the motor and sensory nerves, and contractility of muscle; and to these effects, must be attributed, in part, the disorders of voluntary movement noted above.

"It is very obvious that the Bromides depress certain organic functions; they diminish the action of the heart, lower the animal temperature, and lessen the blood supply to various organs. These results can only be accomplished by a sedative influence on the sympathetic system. Some very accurate observers have maintained that in this action lies all of the physiological power of the Bromides."—*Bartholow*.

Nervous System.—"The persistence of voluntary movement in the frog after the abolition of reflex action, shows that the influence of the drug is not chiefly exerted upon the cerebral centers of motor impulse, nor upon those cells of the cord that originate movement, but upon either the afferent nerves or those portions of the cord which transmit the impulse from these nerves to the cells presiding immediately over motion. This is confirmed by some experiments of Lewisky, in which it was found that previous separation of the cord from the cerebrum had no influence upon the action of the Bromide. Both he and Purser also found that death occurred from small doses before the motor nerve trunks and the muscles had lost their irritability. This being so, the question arises whether the paralysis be spinal or due to paralysis of the peripheral afferent nerves. There is an apparent

conflict in the evidence upon this point. Eulenberg and Guttmann found, that, when access of the poison was prevented to one or more limbs by tying the arteries, reflex actions were abolished in these parts as rapidly as in others. Similar results have been obtained by Lewisky, by Roberts, Bartholow, by Purser, and by Laborde. The latter observer has also found that electrical stimulation of a nerve high up will cause violent spasms in the muscles directly supplied by it, although it may be unable to excite the slightest reflex tremor. On the other hand, Damourette and Pelvette assert a contrary result. Unfortunately, they do not give the details of their experiments. They state, however, that, if the lumbar plexus of vessels be tied before the poisoning, the fore feet lose their reflex activity before the hinder. There are two possible methods of reconciling their results with those of the other observers. In some way, the operation may have interfered with the circulation in the lower part of the cord, and consequently the poison have reached more freely the upper part of it and acted first upon it. Again, if the injection was, as is very probable, thrown into the anterior portion of the body, the poison may have reached the anterior extremities in so concentrated a form as to have acted, as it were, locally upon their nerves and muscles. The same observers, in other portions of their memoirs, show the solutions of these salts travel by imbibition; and this and their local action seem to me to be the cause of the differences of experimental results. It seems well established that cutaneous anæsthesia, in greater or less degree, accompanies the loss of reflex activity; for, as Dr. Purser says, a poisoned animal quite able to jump submits to pinching, pricking, burning, etc., without moving. Eulenberg and Guttmann have noticed the same thing in rabbits. Damourette and Pelvette have noticed a condition in which electrical stimulation of a nerve-trunk produced marked reflex action, although no excitement of the skin supplied by the afferent fibers of the nerve was capable of doing this, showing that the extremities of the sensitive nerves are affected before the trunks. The evidence is, I think, sufficient to prove that Bromide of Potassium affects all the parts of the nervous system of the lower animals, but that the cerebrum, the motor tract of the cord, and the efferent nerves are the last portions to be affected; that the most sensitive to its action is the receptive portion of the cord,—that which receives and transmits reflex impulses,—and next to this, and, perhaps, almost equally susceptible with it, are the peripheral ends of the efferent nerves. Upon the cerebrum of the higher animals, the Bromides undoubtedly

exert an influence; but I am not cognizant of any researches sufficiently elaborate to show its extent or nature. Upon man the Bromide evidently acts as upon the lower animals; affecting to a greater extent his cerebrum because of its higher development, but lowering, also, the reflex excitability of his spinal cord, paralyzing the ends of his peripheral nerves, and otherwise affecting him in the same order and degree as the lower animals."—*H. C. Wood, M. D.*

"It paralyzes the nerves of the spinal cord."—*Pletzer.*

"It diminishes the reflex excitability of the nervous centers."
—*B. Sequard.*

The sensory nerves lose their properties before the motor, the latter are affected before the spinal cord, and the spinal cord before the muscles. It appears that it is not a direct poison to the nerves, *but acts on them by and through the blood-vessels.*

Circulation.—It is now a well-established fact, "that large doses of the Bromide exert a direct paralyzing action on the heart, lessening both the force and frequency of the beat, and finally causing diastolic arrest. Dr. J. G. Schoulen found, that, during the slow injection of a two-per-cent solution into the vena cava of a rabbit, the cardiac systole grew slower, the diastole pauses longer, and finally the heart stood still, exhibiting only fibrillary contractions of its walls. The same observer is, so far as I know, the only one who has made manometrical studies of the action of small doses of the drug. He found that such amounts of the Bromide administered hypodermically or by the stomach, always produced increased pulse-frequency, with lessened arterial pressure. His experiments were, however, not carried far enough to demonstrate either how these two changes are brought about, or the relations of the drug to the vaso-motor nerves. Much has been predicated upon the theory which asserts that Bromide of Potassium causes vaso-motor spasm. No decisive proofs have, however, yet been offered of the truth of this favorite dogma. The evidence so far brought forward is as follows. Lewisky found, that, if the toes of two frogs—one poisoned, the other not—were cut off, the unpoisoned frog bled much more freely than the other. This experiment has been confirmed by Dr. Amory. It, however, evidently does not prove the existence of vaso-motor spasm, but only that of a lessened activity of the circulation, which may be of cardiac origin.

"According to Damourette, when the inter-digital membrane of the frog is watched during poisoning, there is seen at first very

often an exceedingly brief period of increased circulation; but in a very short time the latter becomes much slower. Dr. Meuriot asserts that by the aid of the microscope this slowing of the circulation can readily be seen to be due to a contraction of the capillaries, and especially of the small arteries, whose lumen may even be obliterated. Dr. Saisson also asserts that he has witnessed a similar phenomenon in the tongue of the frog; and Drs. Hammond and Amory state that they have seen it in the brain of the dog. On the other hand, Dr. Purser and Dr. F. B. Nunneley assert that the vessels in the frog's web are not affected by Bromide of Potassium given hypodermically.

"My own studies of the actions of various poisons upon the vessels of the frog's web have yielded such varying and unsatisfactory results as to make me hesitate in accepting evidence of this nature unless otherwise corroborated. In the absence of manometrical studies, I think the most that can be fairly claimed is that our present knowledge renders it somewhat probable that the Bromide of Potassium is capable of producing vaso-motor spasm. The further deduction that the nervous symptoms induced are secondary to and produced by this spasm is wholly gratuitous, unproven, and improbable. The action of the Bromide when applied locally to the bared nerve demonstrates that it acts directly upon nerve-tissue. Further, the absolute anæmia of the bloodless 'salt frog' produces no such nervous symptoms as does even a non-toxic dose of the Bromide; and the direct experiments of Dr. A. Neil have shown that in the frog the complete abolition of circulation has no effect upon the spinal marrow or upon reflex actions during the first half-hour. The proof is very strong that the drug acts directly upon the nervous tissue."—*Dr. H. C. Wood.*

Dr. Pelvet says: "The minute blood-vessels *contract* immediately in the region of injection, and later throughout the organism; and this contraction is succeeded by dilatation."

"It lessens the amount of blood circulating within the cranium, and produces a shrinking of the brain from this cause."—*Hammond.*

"It appears from the above experiments, that the *primary* affect of the Bromide of Potassium is to cause *contraction* of the blood-vessels everywhere, not only in the brain, but throughout the whole organism, and that this contraction is followed by dilatation.

"To this primary action is due its power to prevent certain kinds of spasms, pain, epilepsy, etc., and to cause sleep.

"The secondary effect of this drug, however, is equally important; namely, the *dilatation* following the contraction. What is the result of this secondary action? According to Brown-Sequard, when the blood-vessels of the spinal cord and brain have been unduly *contracted*, the muscular fibers of the blood-vessels are soon exhausted, and become paralyzed, allowing a considerable degree of congestion to take place; sensibility and the reflex faculty become morbidly increased, and convulsions occur.

"From these facts and deductions, it appears that the Bromide of Potassium is homœopathic to all the morbid conditions and symptoms in which it has been found useful by the Allopathic school."—Dr. E. M. Hale.

Temperature.—"In warm-blooded animals, toxic doses of the Bromide of Potassium lower very decidedly the temperature. Although the point can not be considered settled, it is probable that this lowering of temperature is due to a direct checking of the tissue-changes. Dr. J. H. Bill has found a constant decrease in the amount of carbonic acid eliminated after the ingestion of the salt. In his experiments, the daily excretion of urea was not perceptibly affected. But Drs. Rabuteau and Bartholow found it slightly lessened."—Dr. H. C. Wood.

"Very obvious effects on the action of the heart, on the respiration, and on the animal temperature, are produced by the Bromides if administered in considerable quantity. These functions are depressed, but the depression is much less evident as to temperature; hence, in order to determine this result, most careful observations are necessary. The author has ascertained that two drachms of the Bromide of Potassium will lower the temperature in a healthy adult from one-fifth to one-half a degree; the respirations from two to five, and the pulse from ten to twenty beats per minute. These effects are more pronounced in animals, as ascertained by the administration of lethal doses. In man, the number of the cardiac pulsations is not only reduced, but their force is diminished, and the tension of the arterial system is lowered."—Bartholow.

Glandular System.—"The secretions of the glands are diminished in proportion to the contraction of their blood-vessels."—Pelvet.

If the primary effect of this drug is to cause contraction of the blood-vessels supplying the glands, the secondary effect must be dilatation with congestion. It is a general rule that congestion diminishes the secretion of a gland.

"Excessive action in a gland diminishes secretion."—*Headland*.

Sexual Organs.—This drug has a specific and profound action upon the sexual organs of both male and female. Men of vigorous constitution, accustomed to daily erections of the penis, found that they ceased while taking the medicine, and for several days after it had been discontinued.

"A very notable effect of the Bromides—chiefly Bromide of Potassium—is the diminution of the sexual feeling and of the power of erections produced by it. This fact has been established by abundant clinical evidence. This result is not, however, produced with equal facility in all cases, and considerable doses are necessary in any case (fifteen to twenty grains three times a day)."—*Bartholow*. [It not only lowers animal desire, but produces a feeling of disgust for all sexual ideas.]

"In certain neuroses of the genito-urinary organs, male and female, excellent results have been obtained by the use of the Bromide of Potassium. *Abnormal sexual excitement* and *nocturnal seminal emissions* may be checked by this remedy. The condition of plethora is the indication for the Bromide. When the sexual organs are much relaxed, the erections feeble, and the seminal fluid watery, especially if there be such a constant stillicidium of semen as to constitute the so-called diurnal losses, this drug does harm. [Don't give such large doses, then it will do great good.] The more nearly nocturnal emissions approach the physiological type, the more effective the Bromides. As they act by diminishing the blood supply to the erectile organs, it is obvious that they are contra-indicated when there is debility, and the erections are feeble. They prove completely successful when the erections are normal as to character, but teasing and persistent. The various nervous disturbances growing out of *unsatisfied sexual desire* are quieted by these agents. *Menorrhagia* dependent on ovarian irritation, is usually promptly arrested by these agents; and sometimes *metrorrhagia*, even when due to a fibroid, is improved by this drug."—*Bartholow*.

The sense of fullness in the head and the painful flushes of the face at the climacteric are often cured with this drug; and it is useful in obstinate vomiting in pregnancy, ovarian neuralgia, and sub-involution of the uterus.

Mucous Membranes.—The effect of the Bromides upon the mucous membrane is to lower the sensibility to tactile impres-

sions, at all accessible points of this tissue, affecting especially the velum palati, uvula, and upper portion of the pharynx. The anæsthesia is so complete that these parts may be tickled without producing nausea or involuntary movements of deglutition. This action greatly facilitates the use of the laryngoscope in operating on the throat. It also produces gastric catarrh, but has but little effect upon the digestive organs. A very large dose has produced a slight diarrhœa.

Skin.—Upon the skin, it produces papules, pustules, and ulcers; and the sensibility to tactile impressions is greatly lowered, the palms of the hands and soles of the feet being particularly affected.

"The action of Bromide of Potassa on the *skin* is quite decided and specific. It seems to cause, invariably, after it has been taken some time in large doses, (a) an eruption of *small boils*, in successive crops, chiefly over the face and trunk, with troublesome itching; (b) a papular rash on the face, with heat and itching; (c) acne, chiefly on the face, scalp, and shoulders, not very painful, varying in size from a millet seed to a large pea; (d) pustular eruptions of malignant aspect, much resembling varioloid; (e) corroding ulcers. Nursing children have had the characteristic acne, from the taking of the Bromide by the mother, showing that it is taken up into the milk."—*Dr. E. M. Hale*.

Brown-Sequard thinks that the cropping-out of an acne-like eruption on the face, neck, shoulders, etc., is an evidence that the Bromide is proving curative, and asserts that there is a positive relation between the intensity of the eruption and the efficiency of the remedy against epilepsy; and Voisin says the abolition of reflex nausea,—ascertained by passing a spoon as far back as the epiglottis, without causing attempts at vomiting,—hypnotic manifestations, general lassitude, and its antaphrodisiac action, are indications of the successful action of the remedy.

Muscular System.—"Motility is impaired by the long-continued use of the Bromides in man; and in animals paralysis of the muscles ensues. If injected into the tissues of a limb, paralysis of motion and sensibility begins in that member. In man, the impaired motility is probably due to other factors as well as to the action of the Bromides on the muscular tissue; viz., to the cutaneous anæsthesia, and to anæmia of the co-ordinating centers, in consequence of which their functional power is lowered."—*Bartholow*.

"It is not a poison of any special tissues or system. It kills all nerves and muscles; and it may therefore be defined as a general nervo-muscular poison. It affects the sensory and motor nerves and spinal cord before the muscles."—*Martin, Damourette, and Pelvet.*

"The weakness and final paralysis of the *muscular system* is due to the contraction of the *blood-vessels*, and consequent weakness and paralysis of the nerves. The secondary cramps, twitchings, contractions, and spasms of the muscles, are due to the dilatation of the blood-vessels."—*Hale.*

Elimination.—The elimination of this drug takes place through the mucous membranes, chiefly by the kidneys; next to the kidneys, through the mucous membrane of the fauces; then the intestinal tract, bronchi, and slightly through the skin. "When the blood is charged with the Bromide, the salt probably escapes with all the secretions. It has been found by Voisin, Amory, Namias, Bill, etc., in the saliva and the urine. Amory has also demonstrated its presence in the perspiration. In the body of a man who died while taking it, M. Namias found it in all the liquids, as well as in the brain, liver, spinal cord, lungs, etc. Elimination takes place to a certain extent through the skin, and to some extent through the intestinal mucous membrane. Dr. Bill always detected it in marked quantities in the fæces of men taking it; and H. Quincke found, that, when forty grains of the Bromide of Sodium were given to dogs with intestinal fistula, two and a half hours afterward the intestinal juices were free from the Bromides, which reappeared in them after from three to six hours. The salt escapes also through the kidneys. The rapidity of elimination seems to vary. Thus, Amory recovered one-half of the amount ingested during the first, and one-third during the second, twenty-four hours, and Mr. Ware obtained a little more than half of the amount ingested in the urine of the succeeding thirty-two hours, while Bill was not able to get more than one-eighteenth of it during the first day. Dr. Bill has frequently found the Bromides in the urine two weeks after the last dose had been exhibited; and Dr. Rabuteau has seen its presence persist under similar circumstances for a month."—*Dr. H. C. Wood.*

The Bromides Compared.—Bartholow's experiments on animals have demonstrated that the Bromide of Potassium possesses the most toxic power, and the Bromide of Sodium the least. The Bromide of Lithium is first, the Bromide of Sodium second,

and the Bromide of Potassium third, in hypnotic power. As respects the influence of these agents severally on the reflex faculty of the spinal cord, it may be stated that none of them possess the power to abolish the reflex faculty except when administered in lethal doses. Considered from this point of view, the Bromides may be grouped as follows: *Bromide of Ammonium*, *Bromide of Potassium*, *Bromide of Lithium*, and *Bromide of Sodium*.

Therapeutic Individuality.

Head and Mind.—Profound melancholy, from anæmia.

Loss of memory, forgets how to talk, absent-mindedness.

Great despondency, with insanity, a feeling of moral deficiency, or a religious delusion, from anæmia.

Delirium tremens, in the first or irritative stage; face flushed; eyes red; delirium active; horrid illusions, hard, quick pulse, (five to twenty grains once in two hours).

Remarkably depressed, with well-marked amnesic aphasia.

The memory absolutely destroyed, from anæmia and emaciation.

Somnambulism, and night terrors of children.

"Frightful imaginings in pregnant women, from congestion of the brain."—*Dr. Hale*.

"Puerperal mania, when attended by ferocious or erotic delirium, is often cured by free doses of this drug."—*Dr. Hale*.

"Profound, and yet disturbed, sleep, always awakens with a mental struggle, 'not knowing at first where I was, or what had become of me.'

"Great difficulty in getting and keeping the right word, although the right idea is present to the mind. [This is caused from anæmia of the frontal lobe of the brain.]

"Epilepsy from cerebral congestion, with vascular fullness of the retina, as shown by the ophthalmoscope, is cured with the Bromide of Potassium; but, if there is anæmia of the brain, the Bromide aggravates."—*Dr. R. C. Vance*.

"No therapeutical fact is better established than the influence of Bromide of Potassium over *epilepsy* and *epileptiform* convulsions. It has been well ascertained that Bromide of Potassium is most valuable in those cases of epilepsy characterized by frequent and violent convulsive seizures. Epileptiform attacks, dependent on the presence of a tumor or other coarse organic lesion of the brain, are usually suspended by the use of this drug,

although the neoplasm is unaffected in its growth. It is a curious circumstance that attacks nocturnal exclusively, are less amenable to the Bromide treatment than those which occur in the day-time. *Petit mal*, or epileptoid seizures, are as a rule not so much benefited as are cases of the *grand mal*; and *hysterical convulsions* are rarely improved by Bromides."—*Dr. R. Bartholow*.

In reflex cerebral irritation, with active congestion in children during teething, cholera infantum, or scarlet fever, it is almost a specific. (First stage of Hydrocephaloid from cholera infantum.)

Migraine, with flushed face, throbbing temples, injected conjunctiva, photophobia, and much congestion of the brain.

Tetanus.—Of all known remedies this is the best for tetanus. H. C. Wood gives fifteen cases in which the Bromide cured thirteen. No results equal to this have been achieved by any other agent, not even by Calabar bean; but, to succeed, it must be given in large doses (one drachm) every three or four hours.

Sexual Organs, Male.—Excessive sexual desire, amorous dreams, erections, and nocturnal emissions. This is a precious remedy in spermatorrhœa, before the paralytic symptoms have set in; the erections are normal but teasing and persistent, with nocturnal emissions and the nervous disturbances growing out of unsatisfied sexual desire; but it must be given in from five to fifteen grains at a dose three times a day, to subdue the condition of plethora. Added to this, the testicles should be suspended in cold water some minutes, morning and night, with cold sponging.

Sexual Organs, Female.—Ovarian neuralgia from nervous unrest which grows out of ungratified sexual desire.

In menorrhagia from ovarian irritation caused by strong sexual desire; it acts with great promptness.

Excessive sexual desire during the menses.

Scanty menstruation, in fleshy women.

Induration and enlargement of the womb. Sub-involution.

"Menstrual ailments, before the menses; headache; during the menses, epileptic spasms, nymphomania, itching, burning, and excitement of the vulva, pudenda, and clitoris; after the menses, headache, insomnia, and heat in the genitals."—*Hale*.

"In pruritus of the vulva from irritation of the uterus or ovaries, or any hyperæsthesia of the veins of that locality, no remedy can equal the Bromide of Potash."—*Hale*.

In vaginismus, it has acted favorably.

In large doses it has cured ovarian cysts after tapping. Two cases are recorded by Dr. Black in the *British Journal of Homœopathy*.

For morning sickness, use large doses injected per rectum.

Climacteric, with *painful flushings of the face*, and much *congestion of blood to the head*; palpitation of the heart.

Sub-involution of the uterus has often been cured by this remedy; and it has appeared to cure some cases of fibrous tumors of the uterus.

Digestive Organs.—"Complete anæsthesia of the throat, so that the finger may be carried to the base of the tongue, touch the amygdala or posterior nares, and tickle the uvula, without inducing any effort at vomiting or deglutition. Of much use in laryngoscopy."—*Hale*.

"In nausea and vomiting of drunkards and pregnant women, it often acts magically."—*Hale*.

"Asiatic cholera. In the first stage, it arrests the vomiting; cramps, and rice-water stools; restores the secretion of urine; and the warmth and color return to the cold, livid skin."—*Dr. Begbie*.

Cholera infantum, with reflex cerebral irritation of the brain, before effusion.

Flatulent colic in children and hysterical women.

"Polypoid tumors of the rectum."—*Helmuth*.

"It has relieved spasms of the sphincter ani."—*Hale*.

Constipation; stools very dry, hard, and infrequent.

Respiratory Organs.—It has acted finely in whooping-cough, with spasmodic, dry cough; also in the nervous, dry, hysterical cough of women, especially if pregnant.

"Spasmodic, dry croup, occurring suddenly in the night; from reflex irritation, teething, worms, and not catarrhal."—*Hale*.

Laryngismus stridulus, from neurosis or reflex irritation.

Cough that is dry, due to reflex action from stomach, intestines, or uterus.

Torpid bronchitis, with copious purulent expectoration.

In spasmodic asthma, with dry, nervous, spasmodic cough, it has acted well, if there is great tightness of breathing.

Cardiac neuroses from spinal or uterine irritation.

When given in the crude form, it is best to give it in beer or milk.

Skin.—It is very valuable in long-lasting serofulous ulcerations, given in the crude form.

Large, indolent, painful pustules; boils.

Acne of the face in young fleshy people of gross habits.

Pustular ulcerations, and small boils.

Especially adapted to large, fleshy people, and to diseased organs that are in a hypertrophic condition. Acts better in children than in adults.

Aggravation.—In the evening.

KALI CARBONICUM.

Carbonate of Potash.

Chemical preparation, Aqueous solution, one part to nine.

Antidotes.—Camph., Coff., Zinc., Op., Demulcent drinks.

Through the great vegetative nervous system, Kali carbonicum has four special centers of action:

- I. MUCOUS MEMBRANES. *Congestion.*
- II. SEROUS MEMBRANES. *Diminished Secretions; Rheumatism.*
- III. GENERATIVE ORGANS, FEMALE. *Ovarian Atony.*
- IV. BLOOD. *Fibrine Increased; Rheumatoid Affections.*

Mucous Membranes.—Carbonate of Potash acts upon the mucous membranes of the *respiratory organs*, and the *digestive tract*, producing excessive irritation, bordering on inflammation, but hardly reaching that point. Upon the mucous membrane of the kidneys, it acts as a diuretic, changing the urine to alkaline.

Serous Membranes.—It causes an extremely dry condition of the serous membranes, including the myolemma of the muscles, from which we get sharp, stitching pains, the greatest "key-note" of Kali carbonicum.

Blood.—Increased amount of fibrine in the blood, and a state similar to rheumatism.

Ovario-Uterine System.—Here it produces suppression or delay of the menses, or menorrhagia, with cutting pains in the abdomen and much aching of the small of the back.

Therapeutic Individuality.

Distressing, darting, sticking, shooting pains are the great characteristic of this drug. Rheumatoid affections:

"Stitching in the right side, commencing in the back, and going through the chest, which is worse at night, when lying down or rising."—*H. N. Martin, M. D.*

"Stitching pains in the liver, worse in the cold air."—*Dr. H. N. Martin.*

"Stinging pains in the joints and inner parts."—*Lippe.*

All the symptoms get regularly worse about 3 a. m.

Adapted to aged people, inclined to be fleshy.

Head.—"Great aversion to being alone."—*G.*

"Great dryness of the hair."—*G.* [Scalp very dry.]

"Dry hair rapidly falling off, and much dandruff."—*F.*

"He talks of pigeons flying in the room, which he tries to catch with his hand."—*G.*

Anxiety with fear, very easily frightened, full of fears.

Irritable, peevish, very passionate, like a *Nux vomica* patient.

Quick motion produces vertigo; very irritable and anxious.

Pressive headache in forehead, extending to eyes and nose.

Stitches in the temples; worse stooping; moving head or eyes; relieved from rest and head; pressive headache.

"Swelling over the upper eyelid, in the morning, looking like a little bag."—*J. B. Bell.* [Very characteristic.]

"A constant sensation in the head as though something were loose."—*Hah.*

Eyes.—"Redness of the white of the eye, with many vessels in it."—*Hah.*

"Burning, biting pains in the eye, with stitches in the eyeball, and inflammation of the lids of the right eye, with pain and inability to read."—*Hg.*

Agglutination of the lids in the morning.

Lachrymation and photophobia; bright spots before the eyes.

Nose.—"In ulceration of the nostril, Kali carbonicum has proved curative in my hands in 2d and 3d dilutions."—*W. Bayes.*

Nose swollen and red; nostrils sore and scurfy; stoppage of the nose, with frequent bleeding.

Pale, sickly color of the face, with much debility.

Digestive Organs.—Whenever he eats has toothache.

Foul, slimy taste, with painful, burning vesicles on the tongue.

Mucus very tenacious in pharynx, difficulty in swallowing; pain in the pharynx, as if a fish-bone were there.

Deglutition very difficult, with efforts to vomit.

Stomach.—Eructations of food and acid water; pit of stomach swollen.

Feeling constantly as if the stomach were full of water.

After eating, emotional excitement causes nausea.

"Intense thirst, morning, noon, and night."—*G.*

Pit of the stomach swollen, tense, sensitive to touch, with violent throbbing, stitching pains, very much desire to be alone.

Abdomen.—"Fullness, heat, and great distention of the abdomen immediately after eating."—*Hah.*

"Feeling as if cold fluid were passing the intestines."—*Hah.*

"Constipation, with distress one or two hours before stool, with colicky, stitching pains."—*G.*

Ineffectual urging to stool; rectum feels too weak to expel it.

Frequent urination, especially at night; urine alkaline.

"Cutting pain in left side of upper abdomen."—*Gersdorff.*

Sexual Organs, Male.—Excessive sexual desire, with emissions, followed by great debility.

Sexual Organs, Female.—Menses of a bad, pungent odor, and very acrid; excoriating the thighs (too acid), with great back-ache, and sticking pains in the abdomen. Many rheumatoid symptoms.

"Feels very badly a week before menstruation."—*G.*

"Great, heavy, aching weight in the small of the back, especially during menstruation."—*G.*

Menses too early, too profuse, and last too long; with great soreness of the vagina and vulva; eczema.

During menses, cutting colic in the abdomen.

"Colic in lying-in women, characteristic stitching pains."—*F.*

"Yellow leucorrhœa, with much burning and itching."—*G.*

Respiratory Organs.—Dry cough, night sweats, hectic fever, sometimes expectorates bloody pus.

"Dry, hard cough, *especially aggravated about 3 a. m.*"—*G.*

"Amelioration of cough when lying on painless side."—*Lippe.*

"Stitches in the sides of the chest on deep inspiration."—*Hah.*

Sharp, cutting, stabbing pains in the left chest.

"Cutting pains in the chest in the evening after lying down."—*Hah.*

"Unable to speak on account of cramp in the chest; face red; and perspiration over the body."—*Hah.*

"Much weakness and weariness of the chest."—*Hah.*

Much stitching pain below the left mamma, with great soreness of the chest; rheumatoid symptoms prominent.

Back.—"Much stiffness of the nape of the neck."—*Hah.*

Stitches in the left scapula on breathing; in lung diseases.

"Bruised pain in the back during rest."—*Hah.*

"Drawing pains in the small of the back."—*Hah.*

"Feeling as if the small of the back were pressed inward."—*Nenning.*

Drawing, tearing pains in the limbs; chronic rheumatism.

Fever.—Great chilliness toward evening during motion; relieved near warm stove and after lying down; chill mixed up with the heat; with thirst; more chill than heat.

Internal heat and external chilliness, with dyspnoea.

Copious night sweats, without relief; mental exertion causes sweat.

Least exertion produces perspiration and much prostration.

Much inclined to take cold, perspires so copiously.

The least touch on the part frightens him.

Aggravation.—Morning, from 2 to 3 a. m.; from cold and from rest.

Amelioration.—During the day; motion; warmth, wrapping up the head, and in warm, open air.

KALI CHLORICUM.

Chlorate of Potassium.

Chemical preparation. Aqueous solution, one to nine. Trituration.

Antidotes.—Bell., Puls., Hydrast.

Through the organic nervous system, Chlorate of Potash has four special centers of action:

- I. MUCOUS MEMBRANES. *Destructive Inflammation; Ulceration.*
- II. SALIVARY GLANDS. *Salivation.*
- III. KIDNEYS. *Congestion; Inflammation; Hemorrhage.*
- IV. BLOOD. *Fibrine Increased; Scorbutic Condition.*

Mucous Membranes.—Chlorate of Potash affects all the mucous membranes, but more particularly those of the mouth and digestive tract, and of the kidneys. In the mouth, it produces deep ulceration of the mucous membrane.

By its action on the gastro-intestinal tract, it produces nausea, vomiting, and inflammation of the whole mucous tract. One man took three hundred grains of this salt daily for four days, which produced "pains in the bowels, with incessant vomiting, and death." The autopsy revealed inflammation of the stomach, its mucous membrane being softened and entirely disorganized. "One ounce of the salt taken by Dr. Fountain produced death in seven days, from violent gastro-intestinal inflammation. First, there was copious diuresis, and then hemorrhage from the kidneys, with entire suppression of urine. Post-mortem revealed violent and intense inflammation of the entire alimentary tract, from the stomach to the rectum; portions of the mucous membrane were destroyed, hanging in ragged shreds and patches, as if the intestine had been macerated a long time in a strong alkaline solution; the bladder was empty, and the mucous membrane gave a similar appearance. There were crystals of the Chlorate in the pelvis of the kidneys, and a large bulla of extravasated urine (apparently) under the capsule of the kidney."—*Stille*.

Glands.—Large doses produce copious salivation, with saltish taste in the mouth, and the teeth become thoroughly cleansed. The appetite is increased.

Therapeutic Individuality.

Mouth and Throat.—This remedy may be called a specific for aphthæ and stomatitis; it will cure about every case in from one to three days. My favorite way of administering it is to let the patient put a small crystal in the mouth and suck it until all dissolved, once in two or three hours.

Follicular ulcers on the inside of the lips and dorsum of the tongue; mouth full of saliva; glands enlarged and tender, in cachectic people. Admirable remedy in Mercurial salivation.

Gums inflamed; very sensitive; bleed frequently.

Burning, stinging blisters on the tongue and buccal cavity.

Heat and dryness of the mouth; peeling off of the lips.

Breath excessively fetid, in ulceration and diphtheria.

Many physicians have great confidence in this drug in diphtheria. It makes a grand gargle.

Kidneys.—Catarrhal inflammation of the kidneys.

Syphilis.—It has been found of much value in secondary syphilis affecting the fauces.

KALI HYDRIODICUM.

Iodide of Potassium.

Chemical preparation. Alcoholic solution, two parts to nine of Alcohol. Trituration.

Antidotes.—Hep., Merc., Spong., Plumb., Vegetable acids, Demulcents.

Through the great vegetative nervous system, Iodide of Potash has nine special centers of action:

- I. MUCOUS MEM. *Congestion; Inflammation; Mucorrhœa.*
- II. KIDNEYS. *Congestion; Inflammation; Albuminuria.*
- III. AIR-PASSAGES. *Broncho-Pneumonia; Mucorrhœa; Asthma.*
- IV. SKIN. *Acne Indurata; Pustules; Hydroa.*
- V. LYMPHATICS. *Hypertrophy; Loss of Function; Ulceration.*
- VI. GLANDS. *Congestion; Induration; Atrophy.*
- VII. SEROUS MEMBRANES. *Dropsical Effusions.*
- VIII. FIBROUS TISS. *Inflammation; Hypertrophy; Nocturnal Pain.*
- IX. BLOOD. *Anæmia; Fibrine Increased.*

Mucous Membranes.—Upon the mucous membranes of the respiratory tract, Kali hydriodicum has a peculiar irritating effect, especially centering upon the mucous lining of the frontal sinuses, Schneiderian membrane, and the eyes. "Catarrhal inflammation of the Schneiderian membrane in the frontal sinuses, and the antrum Highmorianum as far as the posterior nares; red, swollen nose, with constant discharge of a watery, acrid, colorless liquid, from both nostrils; painful and violent sneezing. Swelling of the eyelids, with profuse lachrymation, and injected appearance of the conjunctiva. Stinging pains in the ears; redness of the face, with expression of anguish and uneasiness, horrid throbbing distress in the frontal region, accompanied with a feeling of compression in both sides of the brain, and with a sensation as if the volume of the brain had increased threefold; with tossing about in the bed; excessive irritability, bordering upon rage; loathing which causes one to shake; white coating of the tongue; nasal sound of the voice; violent thirst and catarrhal fever characterized by heat and dryness of the skin, alternating

with profuse sweats, predominance of heat, with intercurrent chills, and dark, hot urine."—*Noack and Trinks*.

Dr. Ringer says: "The tissues most frequently and most severely influenced by this drug are the mucous covering of the eyes, and lining of the nose, frontal sinus, and mouth, with the skin of the face. Some slight running of the nose is first noticed, with occasional sneezing, and a little frontal headache; these symptoms become more marked when the conjunctiva is injected, and the tears flow abundantly. The Iodide produces decided changes in the buccal mucous membrane, causing redness and injection of the lining of the cheek, the throat, soft palate, and of the tongue; an increased growth and separation of the epithelium covering these parts, and an augmented flow of saliva.

"A large dose irritates the stomach, and disorders digestion. Some are far more prone than others to be thus affected, so prone that even minute medicinal doses sometimes irritate the stomach.

"Like the Chloride of Sodium, and Chloride of Ammonium, this salt increases the production of mucus from the stomach and intestines, as well as from the mucous membrane of other parts of the body; but, when such a result is desired, we resort to the Chloride of Ammonium in preference to this salt.

"When the stomach is singled out by the Iodide, it induces nausea, and a sensation of sinking at the epigastrium, with loss of appetite, and sometimes watery diarrhœa. A grain or even less may affect the stomach."

Kidneys.—On the mucous membrane of the kidneys, it has been known to produce congestion and albuminuria; but this is not a constant effect. It is eliminated mainly through the kidneys, without undergoing much, if any, decomposition. This elimination is not rapid; for, in some cases, this salt may be detected several weeks after its ingestion. Neither has it any uniform influence on the amount or quality of urine secreted. In some, it produces copious diuresis, and in others not much change from the normal. In the first stage of Bright's disease, it has been found useful, especially if caused by syphilis.

Lungs.—The action of the Iodide of Potassium upon the mucous lining of the larynx and bronchial tubes, is well marked, as shown by the hoarseness, rough feeling in the trachea, obliging one to hawk; oppression of breathing; rough feeling in the trachea; short, dry, hacking cough; finally accompanied by copious green expectoration; bloody cough on awaking every night, with

oppression of the chest; loss of voice. In fact, the symptoms of croup, bronchitis, and broncho-pneumonia or asthma, are all well marked out; and they all have often been cured by this drug.

Skin.—By prolonged use, the Iodide has a marked action upon the skin. "The most common effect is *acne indurata*. More rarely blood-blisters or watery blebs form. Iodic purpura occurs in the form of discrete purple spots upon the skin, most frequently on the legs; and they usually disappear spontaneously in two or three weeks. The pustular, bullar forms of the eruption seem to take their origin in the hair follicles, according to some dermatologists; in the sebaceous glands, according to others. The bullæ are sometimes very large, measuring an inch or more in diameter, and are filled with a clear, turbid, or bloody serum, and have sometimes been described under the name *hydroa*. They are very painful to the touch, of rare occurrence, and seem to depend upon some peculiarity of the patient, since they may be produced by very small doses of the medicine."—*National Dispensatory*.

Lymphatic and Glandular System.—Kali hydriodicum has a marked effect upon the lymphatic system very similar to Iodine, producing hypertrophy and loss of function similar to those caused by syphilis, as shown in ulcerations, especially of the throat and skin.

The glandular system, in general, is also prominently affected, as shown by the induration and enlargement of the thyroid gland (goiter), swelling and induration of the testes, prostate, and salivary glands. In the latter, salivation is often produced, but is not accompanied with the fetor of Mercurial salivation. In rare cases, this drug produces atrophy of the testicles, and loss of sexual desire, but not in such a marked degree as Iodine.

Serous Membranes and Fibrous Tissue.—It produces thickening of the periosteum, and is signally beneficial in syphilitic nodes. Upon the serous membranes of the pleura, brain, meninges, and joints, its action is strongly marked, as shown by the cure of dropsical effusions, especially if sub-acute or chronic.

Blood.—The *hæmatic* influence of Iodide of Potassium is not fully made out; but it is known that it causes the blood to become thin and watery, produces a petechial rash and purpura, and that it is, like Mercury, an anti-plastic. (See Iodine.)

These two drugs, the Iodide of Potassium and Iodine, should be studied together, their effects upon the system being so similar that many good physicians claim there is no difference; but I believe there is much difference, that they constitute two distinct drugs, with, however, great similarity.

Therapeutic Individuality.

This remedy is especially adapted to scrofulous people of lymphatic temperament, especially if they have been saturated with Mercury; to secondary and tertiary syphilis, and to chronic periosteal rheumatism.

It is the best known antidote for all the bad effects of Mercury and for secondary and tertiary syphilis.

Syphilis.—"It is largely employed in syphilis, but is not equally efficacious in all its forms, being more useful in secondary and tertiary syphilis, especially in the tertiary form where Mercury may do harm. The Iodide should be employed when the health is broken down, and Mercury has been taken without good effects, or when the bones are diseased. It is conspicuously beneficial when the disease fixes on the periosteum of the bones or fibrous structure of the softer organs, and forms what are called nodes. Its action on this form of disease is almost magical; it soon subdues the pain, and the nodes, if not of long standing, quickly disappear. In the treatment of tubercular syphilitic skin eruptions, Dr. Neligan prefers it to a salt of Mercury. The Iodide of Potassium is of very great service in syphilis of deep-seated and important organs. It has been commended in syphilitic iritis; but in this case most authorities prefer Mercury. The secondary syphilis of children is best treated with Mercury; yet the following somewhat rare form of syphilis gives way best to Iodine: In children a few months or years old, a syphilitic thickening of the periosteum is sometimes observed, usually attacking the heads of several of the long bones, but sometimes also the shafts. The thickening is first felt around the bones; but, as the disease advances, the neighboring soft tissues become infiltrated with a firm exudation, which may increase to such a degree that the implicated part of the limb becomes much swollen, the skin very tense and shining, and a little reddened. The affected parts are very painful. When the disease is seated at the head of the bones, the movement of the joint is not impaired. Here the Iodide will often cure."—*Ringer*.

The Dose.—One word as to the dose. Our school has often failed with this drug in syphilis, from the simple reason that they have administered it in too small doses. I well remember the loss of a patient worth two hundred thousand dollars, whom an old-school physician subsequently cured with massive doses of this drug, while I had puttered along with the same remedy and did no good, because I was taught not to give the large dose. This nonsense cost me a thousand dollars, but taught me a lesson that will last a lifetime. Now I am not ashamed to give from one to five grains of the crude drug three times a day, and often give fifteen to twenty grains at a dose three times a day in obstinate cases of secondary and tertiary syphilis. A good vehicle, in which to administer it, is milk.

Lead-Poisoning.—No remedy can eliminate lead with such certainty and rapidity as the Iodide.

Hydrargyrosis.—In hydrargyrosis, the Mercurial salts are deposited from the blood in an insoluble form in the animal structures. In such cases, the Iodide of Potassium re-dissolves the Mercury back into the blood again, and eliminates it through all the glandular system, especially the kidneys.

Head.—Anxiety and great sadness. Dr. Ringer says Iodide of Potassium sometimes produces distressing depression of mind and body. The patient becomes irritable, dejected, listless, and wretched. Exercise soon produces fatigue and even fainting.

Excitation, as if intoxicated, with sadness and sighing.

Congestion of the brain from suppression of habitual catarrh of the nose, or from secondary syphilis.

Most intense and violent headache, with hard syphilitic nodes on the cranium (periosteal syphilitic headache).

"Pains in the sides of the head as if screwed in; better in open air."—*Hg.*

"Pain in the upper part of the head as if it would be forced asunder, and it is hot to the touch."—*Hartlaub and Trinks.*

"The scalp feels as if ulcerated when scratching it."—*Hartlaub.*

Falling-out of the hair from secondary syphilis.

Eyes.—"Complete blindness, from effusion of water on the brain, with dilated pupils, staring, watery eyes; frequent crying-out and vomiting."—*Hg.*

"One of our most important drugs for irido-choroiditis, iritis, acute or chronic, and choroiditis disseminata, especially of a syphilitic or Mercurial origin."—*A. and N.*

"In paralysis of the muscles dependent upon syphilitic periostitis, no matter which muscle is affected, the Iodide is the most important remedy."—*A. and N.*

"Burning in the eyes, they secrete a purulent mucus."—*Hg.*

"Pustules on cornea; no photophobia, pain, or redness."—*Hg.*

Œdema of the eyelids, with lachrymation.

"Vision dim and foggy."—*Hg.*

Nose.—Violent sneezing, and running of acrid water from the nose. (Very characteristic.)

Acute coryza; great redness of the conjunctiva, nose, throat, and palate, with profuse lachrymation.

"Sensation of fullness and tightness at root of nose, with beating pains in the nasal bones."—*Houat.*

"Nose red, swollen; discharge acrid, watery; tightness at the root of the nose; syphilis."—*Hg.*

"Accumulation of very tenacious mucus in nostrils."—*Hg.*

"Discharge from the nose of greenish-black or yellow matter, of a foul, sickening smell; of decomposed greenish-red blood."—*Houat.*

Throbbing and burning pains in the nasal and frontal bones, with ulceration of the cartilages (syphilitic).

Face pale and colorless.

Mouth.—"Gums ulcerated as if after Mercury; bloody saliva, smells like onions, with sensation as if a worm were crawling at the root of a tooth."—*Dr. Farrington.*

"Dryness of the throat, enlarged tonsils, and papulæ on the face; copious salivation, especially if from Mercury."—*Hah.*

Very offensive odor from the mouth.

Heat in the whole mouth, with swelling.

"Violent ptyalism, with irregular superficial ulceration of mucous lining of the mouth; the surface looks white, as if covered with milk."—*Hempel.*

Gums recede from the teeth, which are loose.

"Impressions of teeth are left on swollen tongue."—*Hempel.*

"Impossible to open the mouth."—*Hempel.*

Vesicles on tip of tongue, with much burning.

"Swelling and suppuration of submaxillary glands."—*Hg.*

"Uvula swollen and elongated; mucous membrane œdematous."—*Hg.*

Gastro-Intestinal Canal.—"Degeneration of the mucous membrane of the stomach, with vomiting, heartburn, emaciation, and diarrhœa."—*Hempel.*

Excessive thirst, with nausea, vomiting, and bloated abdomen.

"Sudden painful bloating of the abdomen, as if it would burst, disappearing after emission of flatus."—*Hg.*

Obstinate constipation; stools hard and scanty.

"Light green and yellow watery stools."—*Houat.*

Chronic diarrhœa in syphilitic or Mercurial subjects.

Liver.—Syphilitic affections of the liver (gummata).

Urinary Organs.—Enuresis at night, in scrofulous and syphilitic children.

Profuse flow of urine is a marked symptom.

Albuminuria, from tertiary syphilis.

Urine sometimes streaked with blood.

Sexual Organs, Male.—"Extensive swelling and inflammation of the penis, with semi-erectile and sexual desire" (*Houat*); chronic gleet.

"Muco-purulent discharge from the urethra, with burning in the urethra, and sometimes discharge of blood."—*Houat.*

Sexual Organs, Female.—Acrid, watery, corroding leucorrhœa.

Too scanty menstruation, in fleshy women.

"Frequent urging to urinate, when the menses appear."—*Hg.*

Atrophy of the mammæ.

Air-Passages.—Asthma, in young people that have not gotten their growth, with many rheumatic symptoms about the chest, and sleeplessness.

Oppression of breathing which awakens the patient in the morning hours, especially in œdema of the lungs.

No air enters the lungs, from laryngeal obstruction.

"Raw pain in the larynx, as if from granulations."—*Houat.*

"Deep, hollow cough, with whitish and *greenish* expectoration and tearing-out pain in the sternum."—*Houat.*

"Mucous phthisis, with purulent expectoration; exhausting night sweats, and loose stools."—*Hg.*

"Violent pains in sternum, extending to shoulders."—*Trinks.*

Back.—Moving produces intense pain in the small of the back, chronic rheumatism of chest and back.

Syphilis.—Periosteal rheumatism of a syphilitic origin; the bones enlarge and are intensely painful at night.

Swelling of bones and periosteum, with nightly bone-pains.

In secondary and tertiary syphilis, with intolerable nocturnal rheumatic pains, driving the patient to despair, no remedy can equal the Iodide of Potassium.

Glands.—"It is of signal service in bronchocele, when the enlargement of the thyroid gland is due to hypertrophy, not to cystic formation or to other causes. It is also used in enlargement of the testes and mammæ, though with less advantage than in bronchocele."—*Ringer*.

In General.—Great general debility.

Fever.—Where the chilliness predominates, the fever is marked by hot flushes, but little perspiration, and very much aggravated at night.

Edematous infiltration of tissues, anasarca, especially from tertiary syphilis, where the periosteum is involved.

Aggravation.—The bone-pains are perfectly intolerable at night, from cold air, and during rest.

Amelioration.—Better from motion.

KREOSOTUM.

Creosote.

Chemical preparation from beech-tar. Two parts to nine of Alcohol.

Antidotes.—Acids, Ars., Cinch., Nux vom., Ipec., Bapt., Lach.

Through the cerebro-spinal, reaching over into the vegetative nervous system, Kreosotum has ten special centers of action:

- I. MUCOUS MEMBRANES. *Catarrhal Inflammation; Ulceration.*
- II. VAGI. *Nausea and Violent Vomiting.*
- III. INTESTINAL CANAL. *Congestion; Inflammation; Catharsis.*
- IV. KIDNEYS. *Diuresis; Strangury; Diabetes.*
- V. LYMPHATIC SYSTEM. *Secretions Acrid.*
- VI. SEXUAL ORGANS, FEMALE. *Secretions Very Acrid.*
- VII. SKIN. *Livid, Copper-Colored; Humid Eczema.*
- VIII. BLOOD. *Coagulation.*
- IX. CEREBRO-SPINAL SYSTEM. *Convulsions; Paralysis.*
- X. DISINFECTANT; ANTISEPTIC.

Mucous Membranes.—Creosote acts on all the mucous membranes, but more especially on that of the digestive organs, producing a catarrhal condition, with a tendency to disorganization and destruction of the tissue.

Strumpf speaks of "a woman sixty years of age who took a considerable quantity of Creosote by mistake. She was immediately attacked by severe colicky pains, and within three hours had upward of forty very painful and bloody stools;" and Dr. Headland says it has a double action; being anodyne, like Hydrocyanic acid, and a mucous stimulant, like Turpentine. Large doses produce nausea, vomiting, and retching; and it is of great value in sympathetic vomiting and cholera infantum.

Kidneys.—The urine is generally augmented, of a dark color like India ink; sometimes there is frequent micturition; and it has caused strangury. As a remedy, it has acted well in diabetes mellitus.

Lymphatic and Glandular System.—Creosote prevents the secretions of the lymphatic system, and produces great acidity of all the secretions; and, in dogs, it has produced salivation.

Sexual Organs, Female.—Menstruation is increased, comes on too soon, and lasts too long; and the uterine secretions become acrid and excoriating. It is of great value in metrorrhagia, acid leucorrhœa, and putrid ulceration.

Blood.—The blood becomes liquefied and decomposed.

Therapeutic Individuality.

Great acidity of all the secretions is the leading characteristic for Kreosote, especially in uterine discharges.

Tall, slim, old people with putrid diseases.

Sexual Organs, Female.—"Menses too early, too profuse, and last too long; inclined to be intermittent; she thinks she is almost well, when the discharge returns afresh."—*G.*

"She always feels chilly at the menstrual period."—*G.* [This shows irritation of the posterior portion of the cord.]

"The menses are usually too frequent and too profuse, succeeded by an acrid-smelling, bloody ichor, with corrosive itching and biting of the parts, and more or less pain during the flow, but much aggravated after it ceases."—*G.*

"Difficulty of hearing, before and during the menses, with buzzing and humming in the head."—*G.*

"Acrid, bloody ichor from the womb, with corrosive itching of the parts; stitches in the vagina."—*G.*

"Putrid, acrid, corrosive leucorrhœa."—*G.* [Excoriating the labia.]

"Leucorrhœa, with great debility, particularly of the lower extremities. It may be mild or acrid, causing great itching."—*G.*

"Very offensive, excoriating lochia; almost ceasing, then it freshens up again; almost ceases and freshens up again and again."—*G.* [Excoriating the vulva.]

"Her hemorrhage seems to pass into a corrosive, ichorous discharge; then to freshen up again, and go on."—*G.*

"Continual hemorrhage from the tumor; at times becomes pale and almost entirely ceases, then re-commences afresh."—*G.*

"Cancer of the uterus, with profuse discharge of dark, coagulated blood, or of a pungent, bloody ichor, preceded by a pain in the back."—*G.*

"Corrosive itching within the vulva, and itching between the labia and thighs, with soreness and burning after urinating."—*G.*
[Extreme soreness of the labia.]

Yellow, acrid, excoriating leucorrhœa, with great weakness.

"Voluptuous itching deep in the vagina."—*Hg.*

"Burning and swelling of external and internal labia."—*G.*

"Awful burning, as of red-hot coal in the pelvis, with discharge of clots of foul-smelling blood."—*G.* [Cancer.]

"In cancer, the whole mamma is hard, bluish-red and covered with little scurfy protuberances."—*G.*

Mouth and Teeth.—"Teeth decay as soon as they appear."
—*G.* [Excoriation of mucous surfaces.]

"When dentition is so badly performed as to become a disease, comprising a general irritation of the teeth themselves, especially when the child is constipated," (*G.*) with great irritability and sleeplessness.

Gums bleed readily, scorbutic, spongy; ulcerated, with excessively foul breath; aphthous ulcerations. Caries of the teeth, when the pain is accompanied by turgescence of the gums and facial congestion.

Gastro-Intestinal Canal.—"Sympathetic vomiting, where the pain starts from some other organ besides the stomach."—*Hughes.*

Nausea and vomiting of pregnancy, or during dentition.

"Obstinate cases of dyspepsia, with great and constant nausea, without actual vomiting, and a cold feeling at the epigastrium, as if cold water or ice were there."—*Bayes.*

Sympathetic vomiting, from kidney, uterus, or liver; phthisis.

Constipation, stools hard, and voided with great difficulty, with much tympanitis; can not tolerate tight clothing. Its action greatly resembles that of *Pulsatilla*, but is more powerful and lasting, the secretions being excessively acrid.

Urinary Organs.—Excessive urination, always with great haste; has to void it every half-hour, in large quantities.

Copious secretion of urine in first stage of diabetes.

Urine very offensive, voided in great haste and in large quantities; with great urgency to urinate.

Chest.—Spasmodic, moist cough.

"Paroxysmal, moist cough, apparently caused by something crawling behind the sternum."—*Prof. Walker.*

Great shortness of breath, with paroxysmal, moist cough.

Burning and stitching pains in the chest, with loose cough and foul, fetid expectoration; shortness of breath.

Mind and Head.—Weakness of memory; great sleeplessness.

Disposition sad and irritable, with livid complexion.

"Buzzing and ringing in the head; with deafness during the menses."—*G.*

Dull, throbbing pains in the forehead, as after a spree.

Eyes.—Chronic keratitis, with excessively hot, smarting lachrymation, and moderately profuse, excoriating discharge.

"Intense itching of the margins of the eyelids; greatly aggravated by rubbing or touching them."—*G.* [Lids much swollen.]

Pustular eruptions over the whole body, with great itching.

Skin.—Wretched, livid complexion, with disposition sad and irritable; pustular eruption over the whole body.

Œdema of the feet, with copious foot-sweat.

"Herpes; humid, scaly, pustulous; on the eyelids, cheeks, mouth, elbows, fingers, malleoli; or large greasy, pox-shaped pustules all over the body."—*Lippe.*

"The itching in the evening became so violent that she was almost crazy."—*Dr. Wahle.* [Especially if from diabetes.]

In General.—*General weakness and prostration are one of the grand key-notes for this drug; excoriation of mucous surfaces.*

Aggravation.—In cold air or from food; open air, morning, or night.

Amelioration.—From warmth and motion.

LACHESIS.

Trigonocephalus Lachesis.

Habitat, S. America. Triturations, 1 drop of the poison to 99 grains of the sugar of milk.

Antidotes.—Its own bile; Alcohol to intoxication; Ars., Bell., Nit. ac., Hyd. ac.

Through the cerebro-spinal nervous system, Lachesis has eight special centers of action.

- I. BRAIN. *Congestion; Coma; Sensory Nerve Life Destroyed.*
- II. CORD. *Spasms; Convulsions; Sudden Prostration.*
- III. VAGL. *Spasm of Throat. (BRONCHI.) (STOMACH.) Emesis.*
- IV. BLOOD. *Rapid Decomposit'n; Hemorrhage; Asthenic Fever.*
- V. CIRCULATION. *Vaso-Motor Par.; Asthenia. (HEART.) Paral.*
- VI. SKIN. *Ecchymosis; Gangrene; Hemorrhages; Jaundice.*
- VII. GLANDULAR S. *All Glands Congested; Fatty Degeneration.*
- VIII. SEXUAL O., FEM. *Ovarian Atony; Scanty, Delayed Menses.*

Cerebro-Spinal System.—Lachesis has a powerful action upon this system, centering especially upon the *pneumogastric nerve*. It poisons the nerve centers; and, following upon this with the rapidity of lightning, there are convulsions, unconsciousness, and great irritation of the throat, larynx, bronchi, and heart. S. B. Higgins, says: "In *Lachesis*, we see the nerve centers attacked first, the man falls as if struck by lightning; unconsciousness follows (at least in some cases); the sympatheticus and vagus are attacked, thus disturbing the whole machinery of life, and causing decomposition of the blood, thus producing gangrene, which is but a consequence of this lack of vitality. Post mortems have shown that the oppression in the chest, with its torturing anguish (so distinctly characteristic of *Lachesis trigonocephalus* and *Elaps corallinus*), is very frequently caused by the extension of the gangrene to the lungs and liver, although death may supervene (as by *Crotalus*) by the depression of nerve-force, so necessary is this latter to the sustenance of the functions of life."

Blood.—The rapid decomposition of the blood, and of the tissues locally acted upon by the venom, produces hemorrhages

from all the mucous surfaces; Asthenic inflammations of the most malignant character; pyæmia; gangrene, and low, asthenic typhoid condition of the system.

As the action of this poison is so similar to that of *Crotalus*, the only difference between the two is that the *Lachesis* has more of the neurotic element, and its action is, if it can be, more rapid and profound; consequently, the reader is referred to the physiological action of *Crotalus* before the characteristic symptoms are studied.

Therapeutic Individuality.

Sleep.—Aggravation of all the symptoms after sleep; awakens very much distressed, and unhappy; greatest characteristic.

"Very distressing aggravation after sleeping, as if the child was dying (in croup)."—*F.* [Loquacious.]

Mind and Head.—Fright from snakes.

"Thinks she is dead (in typhoid), and that preparations are made for the funeral, or that she is nearly dead, and wishes some one would help her off."—*J. B. Bell, M. D.*

"Great inclination to be talkative, vivid imagination."—*Hg.*

"Weakness of memory, words just spoken seemed obliterated."—*Stapf.*

"Vertigo in the morning on waking."—*Hg.* [Heavy as lead.]

"Closing the eyes brings on vertigo."—*Richhelm.*

"Dizzy, pressive headache."—*Hg.* [Head feels heavy as lead.]

"Headache extending into the nose."—*Hg.*

"Headache on the right side, extending into the neck and shoulders, with tension in the muscles."—*Hg.*

"Heaviness like lead in the occiput; can scarcely raise it from the pillow in the morning after waking, with vertigo."—*Hg.*

Apoplexy, followed by paralysis, from cerebral hemorrhage.

"Numbness and crawling on the left side of the head, as in the whole left side, in the evening and next morning."—*Hg.*

Headache accompanying menstrual irregularities at the climacteric, with nausea, drowsiness, and flushings, with much vertigo.

Head swollen, with malignant erysipelatous inflammation, followed by loss of hair; pressing, bursting pains.

Great sadness and sighing on awakening in the morning.

Eyes.—"Eyes feel as though they had been taken out and squeezed and then put back; worse after sleep."—*H. N. Martin, M. D.* [Dimness of vision, fog before the eyes.]

"Dimness of vision; much black flickering before the eyes, that seems very near, and makes reading very difficult."—*Hg.*

"Flickering before the eyes, as from threads, or rays of the sun."—*Hg.*

"Stitches, as from knives in eyes, coming from head."—*Hg.*

"Fiery rays before the eyes."—*Hg.* [Flickering before eyes.]

Scrofulous keratitis, with photophobia, worse after sleeping.

"The snake poisons, as suggested by Dr. Liebold, particularly Lachesis, are the best and most commonly indicated remedies we possess for *retinitis apoplectica*. We have used it in several cases of hemorrhage into the retina, with brilliant results, whether of spontaneous origin or dependent upon various diseases of the fundus. It not only hastens very materially the absorption of any hemorrhage into the retina, but also controls the inflammatory symptoms."—*A. and N.*

Ears.—"Pains in the ears, with a sore throat."—*Hg.*

"Tearing extending from the zygoma into the ear."—*Hg.*

"Whizzing as from insects in the ears."—*Hg.* [Low fevers.]

Nose.—Catarrh, with soreness of the nose; many symptoms end with nasal catarrh, watery discharge; nostrils sore.

"Bleeding of the nose in many diseases."—*Hg.* [Asthenic fevers.]

Copious hemorrhages from the nose in malignant diphtheria.

"Nose red, swollen, with discharge of blood and pus."—*Dr. H. C. Jessen.*

C. Jessen.

"Face has an expression of great suffering."—*H. C. Jessen.*

Face has an earthy, pale, shining color, in malignant diseases.

Malignant erysipelatous inflammation of the face.

Mouth.—"Raging, jerking, tearing in lower teeth, often extending through the upper jaw to the ear, after sleeping, or taking hot food or drink."—*Hg.*

Much bleeding from the gums, they feel raw and burn.

"Mouth very sore, parched, and dry, mucous membrane cracked and bleeding; tongue swollen, and covered with blisters on each side."—*Hg.*

Feeling of much rawness of the mouth and throat.

"Tongue dry, red, black, stiff, cracked."—*Hg.*

Much trembling of the tongue when protruding.

Speech very difficult; the tongue being so heavy, dry, and stiff.

Coppery, saltish, disgusting taste; aphthous sore mouth.

Throat.—"The throat seems swollen, as if two lumps as large as the fists came together; but only on empty swallowing, not on eating, eating seems to relieve."—*Hg.* [Exceedingly dry.]

The throat is so sensitive she can not bear the least touch of the finger.

"Dryness in the throat without thirst, at night on waking; a sticking as if from a thousand needles, that produces suffocation."—*Hg.*

Great dryness of the throat that impedes swallowing.

"Diseases of the throat that commence on the *left side*."—*G.*

"Deglutition painful, with regurgitation through nose."—*G.*

"Pain on swallowing going into the ear, the course of the pain is along the parotid gland externally."—*G.*

"Hawking of mucus, with rawness in the throat, after a nap in the day-time."—*Hg.*

"Feeling as if a crumb of bread remained sticking in the throat, obliging her to swallow, relieved by hawking."—*Hg.*

"Such a sore and ulcerated throat that she could only with great difficulty swallow (tonsillitis)."—*Hg.*

"Throat very sensitive on the left side, worse evenings."—*Hg.*

Very painful, empty deglutition, with feeling of great rawness.

Liquids are swallowed with great difficulty, but solids easily.

Inflammation, and destructive ulceration of the tonsils and fauces, with excessively foul breath. (Gangrene, diphtheria, salivation.)

"Throat greatly swollen internally and externally; discharge from the nose and mouth of an intensely fetid and excoriating fluid; fauces covered with diphtheritic membrane; pulse quick and small; extremities mottled and livid, swallowing almost impossible."—*Dr. E. M. Hale.*

In malignant diphtheria that destroys the nerve centers at once, no better known remedy than the snake poisons, *Crotalus* and the *Lachesis*.

Tonsillitis and diphtheria beginning on the left side.

"Can endure nothing tight on the throat."—*Hg.* [Gangrenous form.]

"The throat and neck are so sensitive to the slightest external pressure that everything about the throat is distressing."—*Hg.*

"If, in the evening on lying down, anything touches the throat or larynx, it seems as though he would suffocate, and the pain is much worse."—*Hg.* [Throat dry, but no thirst.]

"Throat sensitive even to the touch of linen."—*Hg.*

"Asthenic [gangrenous] diphtheria, where the constitutional symptoms predominate over the local; the prostration is alarming; cold, clammy sweat; great fetor of the breath."—*D.*

"Liquids cause more difficulty in swallowing than solids."—*Hg.*

Stomach.—Loss of appetite, or varying appetite.

"Constant thirst, with dry tongue and skin."—*Hg.*

"Sour taste, everything tastes sour."—*Dr. H. C. Jessen.*

"Unusual longing for oysters."—*Hg.*

"Eructations amounting to vomiting."—*Hg.*

Gnawing pressure, nausea and vomiting, relieved by eating.

"Gnawing in stomach, relieved by eating, but returns when the stomach gets empty."—*Hg.*

Much pain in the pit of the stomach, with sensation as if a ball was in the stomach; can not bear the clothes on the stomach.

"Great discomfort of having clothes tight about the waist, must loosen the clothes."—*Hg.* [Hysteria.]

Organic lesions of the stomach or bowels, with vomiting of bilious matter; bilious green vomiting; yellow fever.

Abdomen.—"Diarrhœa in warm weather; aggravated by acid fruits; worse at night and after sleep."—*Hg.* [Burning in anus during and after stool.]

"Excessively offensive stools, the child always awakens in distress."—*G.*

"Hemorrhages from the bowels in typhoid fever; flakes of decomposed blood, having the appearance and form of perfectly charred wheat straw, in longer or shorter flat pieces, with portions more or less ground up. I regard this as a never-failing key-note (given high)."—*G.*

"A tormenting, constant urging in the rectum, without a stool; wanting to pass a stool, but the constant pain is increased by urging, and the patient is obliged to desist."—*Dr. Boyce.*

"Sensation in the anus and rectum as if several hammers were beating there."—*Dr. Eggert.*

"Abdomen distended hard."—*Hg.* [From incarcerated flatus.]

Watery, fetid stools, in low typhoid diseases, with burning in the anus after stools; prostration excessive.

Urinary Organs.—Pressure upon the bladder, with urging to urinate, but inability to do so.

"Urine almost black; frequent, foamy, dark."—*Hg.* [Asthenic fevers.]

"Discharge of offensive mucus in the urine (catarrh)."—*Hg.*

"Feeling as if a ball were rolling in the bladder or abdomen, when turning over."—*Hg.*

Copious emissions of foaming urine.

Sexual Organs, Female.—Sexual excitement; onanism, with epilepsy in both sexes; uterus will not bear contact; upon the ovaries, it has a decided action, especially during the climacteric.

"Left ovary swollen, with tensive, pressing, stitching pains; inability to lie on the right side, on account of a sensation as if something were rolling over to that side."—*G.*

"Pain in the left ovarian region, increasing more and more until relieved by a discharge of blood."—*G.*

"Especially suited to women at the climacteric period, with frequent uterine hemorrhages, and hot flushes, accompanied with burning vertex-headaches and pains in the back."—*Hughes.*
[With frequent fainting.]

There is no doubt, but this remedy, in the 30th and 200th attenuations, is the best remedy in the *Materia Medica* for the climacteric period, when there are frequent *hot flushes*, and a tendency to *fainting spells*.

"She can not bear any pressure, not even the clothes, upon the uterine region; she wishes frequently to lift them; not that the abdomen is very tender, but that the clothes cause an uneasiness."—*G.* [Hyperæsthesia.]

"Menstruation *delayed, scanty*, or intermittent; menstruation regular as to time, but too feeble and of too short duration. Delaying menses every two or three months, and then very profuse; *scanty* menses, with increased leucorrhœa."—*H. Minton.*

"Pains in the uterine region, increase at times more and more till relieved by a flow of blood; after a few hours or days, the same again, and so on."—*Hg.*

"Catamenia at the regular time, but too short and feeble."—*G.*

"Labor-like pains as if everything was being pressed out, followed by a slight show."—*H. Minton, M. D.*

"Leucorrhœa before menses, copious, acrid, and thick."—*D.*

Lochia fetid; in puerperal fever; scanty lochia; swollen abdomen, with vertigo and much pain in the cerebellum.

"It is of great service in the fainting tendency of women, but most of all in the flushings that occur at the critical age, with head symptoms of insomnia."—*Bayes.*

Milk blue and scanty, with lancinating pains in the mammæ.

Respiratory Organs.—"When anything touches the larynx, the latter is not only sensitive, but it is as though it would suffo-

cate him; it also increased the throat-ache behind."—*Dr. Smith.* [Hyperæsthesia.]

"Larynx and throat painful when touched, and on bending the head backward."—*G.*

"During the heat as if from ebullition of the blood, he is compelled to loosen his neck-covering; it seems to impede the circulation of the blood, with a feeling of suffocation."—*Smith.* [Especially if accompanied with hot flushes.]

"In touching the throat, there comes a dry, hacking cough; also in the morning, after sleep, at night, and from tobacco smoke."—*Smith.*

"*Lachesis* is a great medicine for what may be called a '*nervous sore throat*.' In its acute form, the sense of aching is out of all proportion to the visible mischief; when chronic, it is the '*irritable sore throat*,' always uneasy, and causing choking, hawking, and coughing. The feeling as of a dry spot in the throat, or of general dryness of the part, especially on waking from sleep, also of a lump in the throat on empty deglutition, are characteristic."—*Hughes.*

The catarrh of *Lachesis* has but little secretion, with much sensitiveness; dry, spasmodic nightly cough, with much tickling.

"The neurotic sphere of snake poisons is especially when the nerves that have their center in the medulla oblongata are disordered; hence their usefulness in affections of the *throat, larynx; bronchi, and heart.*"—*Hughes.*

"A feeling as if something was swollen in the pit of the throat, and would suffocate him; it must be swallowed, with the larynx and whole throat painful to the touch."—*Hg.*

"Cough caused by pressure on the larynx."—*Hg.*

"Dry, hacking cough caused by touching the throat; also always occurring after sleep, especially mornings."—*Hg.*

"Every contact with the open air causes a violent tickling cough, accompanied by expectoration of mucus."—*Hg.*

Cough is especially aggravated by sleep, and dry in character.

"It also will check and often cure with rapidity the excessive vomiting in whooping-cough; suffocative fits of cough of uncertain origin will often yield to *Lachesis.*"—*Bayes.*

"If, after a long, dry, and wheezing paroxysm of cough, suddenly there is a profuse expectoration of frothy, tenacious mucus, giving great relief, *Lachesis* invariably cures."—*Bayes.*

"Constantly obliged to take a deep breath."—*Hg.* [Paralysis of the vagi.]

Asthma, chest stuffed, with dry cough and difficult expectoration; chest feels constricted, with slow, difficult, whistling breathing.

"Dropsy of the chest; awakens with suffocative spells; liver swollen; scanty, dark urine; palpitation after scarlatina."—*Hg.*

Burning, oppressive pains in the chest; gangrene.

"Lachesis has no power over bronchitis, as such; but it has rendered great service in this affection as a neurotic ally; the cough is spasmodic and suffocative; and, though abundance of fluid mucus is heard in the chest, it is not expectorated, or only after long effort."—*Hughes.*

Heart.—Through the vagi, Lachesis is of great value in cardiac affections, with cramp-like distress.

"Restless, trembling, anxiety about the heart; hasty speech; suffocation on lying down; weight on the chest; heart feels constricted; rheumatism of the heart."—*Hg.*

"Pulse small, weak, accelerated; unequal, intermittent."—*Hg.*

"Cramp-like pain in the præcordial region, causing palpitation with anxiety."—*Hg.* [Heart's action very irregular.]

Chronic nervous palpitation of the heart in hysterical women subject to frequent fainting spells, at the climacteric.

Great shortness of breath; attacks of anguish and suffocation.

Skin.—"The inflammation set up is always of an asthenic character; in form, it is a cellulitis or an erysipelas. Its sanies is absorbed either by the lymphatics, causing angioleucitis, abscess of the lymphatic glands, and inflammation of the areolar tissue higher up, or by the veins, resulting in pyæmia. The local inflammation often goes on to gangrene, and from thence proceed poisoning of the blood and prostration of the nervous energies; we have traumatic gangrene, carbuncle, malignant pustule; malignant erysipelas, putrid sore throat. The effects of dissection wounds, and pyæmia in general, and the second stage of malignant scarlatina often belong to it."—*Dr. R. Hughes.*

"Bullæ dark from bloody serum within."—*Hg.*

"Boils half an inch in diameter near the spine, with violent burning, throbbing pain; disappear without suppuration."—*Hg.*

"Sore spots become fungoid, dark red to brownish, with whitish spots, burning on wiping."—*Hg.*

"Carbuncles, with purple surroundings and many small boils around them; malignant pustule."—*Hg.*

"Bed-sores with black edges; scars open and bleed."—*Hg.*

Yellow or lead-like color of the face and skin.

Neck and Back.—"Stiffness of the nape of the neck, with catarrh; sensitive to external pressure."—*Hg.*

"Pain in the small of the back, as if lame and weak."—*Hg.*

"Intolerable drawing in the small of the back and down into the legs, especially noticed in the ischia."—*Hg.*

Many drawing pains in the small of the back.

Limbs.—"The arms are so weak she is unable to raise them; they fall down again."—*Hg.* [Asthenia.]

"The arm sinks down exhausted after trifling exertion."—*Hg.*

Tearing, aching pains of the arms and legs, in diphtheria.

Great weakness of the legs, especially in the knees.

"Pain as from a sprain, in the right knee."—*Hg.*

"Great physical and mental exhaustion, especially in the morning."—*G.*

"He would constantly sink down from weakness."—*G.*

The slightest exertion causes a feeling of great exhaustion.

"Feeling as though the body were overwhelmed by a disintegrating tendency, with sinking of all the forces."—*Hg.* [Asthenia.]

Fever.—"Annually returning paroxysm every spring, especially if suppressed by Quinia the previous autumn.

"Chilliness in back, commencing in small of back."—*Hg.*

"Violent chill in the evening, with chattering of the teeth; soreness of the chest, and longing for the fire."—*Dr. Allen.*

"Wants to be near the fire and lie down; heat makes him feel better, but does not arrest the chill."—*Hg.*

"Child must be held firmly to relieve the pain in the head and chest, to prevent shaking; if held down or pressed firmly, feels relieved."—*H. C. Allen.*

Intermittent fever; the chills predominate.

Burning in the palms of the hands and soles of the feet; must be covered.

Profuse sweat that does not relieve.

Strong-smelling perspiration; smelling like garlic.

In malignant diphtheria of the worst form. The patient's strength is about gone from blood-poisoning; glands of the throat greatly swollen; the exudate of a dark color, and of an intensely fetid odor; copious hemorrhages from the nostrils; or with acrid secretions, excoriating the skin; sensation of suffocation; difficulty in swallowing fluids, not so much in swallowing solids; great aggravation after sleep; tendency to suppuration, and gangrene (acts best on the left side), with low typhoid symptoms; all symptoms point to asthenia.

Malignant pustule or carbuncle, with rapid loss of strength.

Phlebitis, legs cedematous; great prostration, and general typhoid state.

In pyæmia and all low, asthenic fevers, this remedy should be carefully studied if there is excessive prostration, and a low, typhoid condition of the patient.

Scarlet fever of a malignant type, the throat symptoms assume a virulent character; great and most appalling prostration, and all the signs of blood-poisoning in its worst form.

"Malignant local inflammations, with secondary blood infection and nervous prostration, have proved pre-eminently the sphere of action for Lachesis. A typical instance is found in *traumatic gangrene*."

Purpura, and *cerebro-spinal meningitis*, with ecchymosis; hemorrhages; the prostration is early and intense; rapid, like lightning. (No remedy can equal the snake poisons.)

Aggravation.—*After sleep*; on rising from the bed; morning and evening; extremes of temperature; alcoholic drinks; acids; in the open air; the throat, from contact.

Amelioration.—While eating, and from warmth.

LEPTANDRA VIRGINICA.

Black Root.

Habitat, North America. Tincture of the fresh root of second year. Class III.

Through the abdominal sympathetic nervous system, Leptandra has two special centers of action:

- I. LIVER. *Secretions Greatly Increased.*
- II. INTESTINAL CANAL. (M. MEM.) *Congest'n; Inflamm.; Catharsis.*

Liver.—Through the filaments of the solar plexus, Leptandra greatly arouses the secretory action of the liver, increasing the solid and decreasing the fluid constituents of its secretion. King says of Leptandra: "It is a cholagogue, causing the liver to act with great energy, and without active catharsis, and is employed with success in all hepatic affections. . . . It is indicated by an inactive state of the liver, and all functional dis-

eases of that organ. It is the only known remedy which efficiently stimulates and corrects the hepatic secretions, and removes functional derangements of the liver, without debilitating the system by copious alvine evacuations."

It is to the Eclectic school what "Blue mass" is to the Allopathic.

That it has a powerful action upon the liver, is most beautifully shown in my proving with large doses of the fluid extract, as follows: Dull aching pain in lower part of right hypochondriac region near *gall-bladder*, with dull, aching pain in umbilicus, and rumbling in the bowels; dull aching in the whole of the liver; the pain extending to the spine, but worse near the gall-bladder; constant, dull, burning distress in the epigastric and hypochondriac regions; dull aching, burning distress in the region of the gall-bladder, with frequent chilliness along the spine; profuse black, undigested stool, followed by great distress in the region of the liver, extending to the spine; the pain is of a hot, aching character, with chilliness along the spine; sharp, cutting pains near the gall-bladder; great burning distress in the back part of the liver, and in the spine; pain in the left shoulder and arm; jaundice, with clay-colored stools.

It will be seen by the above that no known drug has more marked hepatic symptoms.

Intestinal Mucous Membrane.—The mucous membrane of the small intestines, and especially that of the colon and rectum, is highly congested; and, in some instances, true inflammation has been produced, as shown by the stools of *mucus* and *blood*, or *pure blood*; but the most common effect of this drug is to produce stools that are black and tar-like, and thin, fetid, watery evacuations, with severe pains *after stool*. (The pain of *Podophyllum* is *before stool*, and that of *Mercury* *during and after stool*.)

This is a precious remedy in chronic diarrhœa, and has saved thousands of lives in this disease. Dr. Coe, says: "No remedy with which we are acquainted, is more to be relied upon in chronic affections of the mucous surfaces. Its value in this respect is peculiarly apparent in chronic dysentery and diarrhœa, and other diseases of the bowels. When false membranous formations have occurred in the smaller intestines, produced by the gradual exudation of plastic lymph, the *Leptandra* may be relied upon for their removal, with great confidence."

In camp diarrhœa and dysentery of a chronic nature, where the mucus discharged seems to resemble false membrane, *Leptandra* will be found our most useful remedy.

Therapeutic Individuality.

Abdomen and Stool.—This is one of the best known remedies for chronic diarrhœa, especially where the stools are worse in the afternoon and evening; stools black, fetid, and muco-purulent. Chronic diarrhœa, with inflammation of the mucous membrane of the colon, and hepatic derangement very prominent. Stools of mucus, with much abdominal pain.

"Black, profuse, papescent, tar-like, very fetid stools, generally in the afternoon and evening."—*Hale*.

Very profuse, black, fetid stools that ran in a stream from my bowels, preceded by severe abdominal pain.

Constant aching distress in the umbilicus, with stools of mucus and black fœcal matter; or pure mucus.

Stools of mucus and fetid matter, with great goneness in the epigastrium, with much emaciation and debility.

Congestion of the portal circulation; with constant distress in the lower part of the epigastrium, and upper portion of the umbilical region, with frequent sharp, cutting pains, with white stools.

Liver.—Congestion of the liver, with an icterode condition, yellow-coated tongue and brown urine.

Aching pains in the liver, especially in the region of the gall-bladder; stools with lack of bile.

It has cured many cases of jaundice.

Gall-Stones.—From the great increase of the solids of the bile, and especially the elimination of cholesterine by *Leptandra*, it ought to prove one of our most useful remedies for the cure of gall-stones.

"Hepatic disease, periodical every two or three months; yellow-coated tongue, constant nausea, with vomiting of bile; shooting, aching pains in the liver; loss of appetite; brownish urine; pain in the transverse colon; vertigo, with dark, almost black, stools."—*Dr. Neidhard*.

LILIUM TIGRINUM.

Tiger Lily.

Habitat: America, China, etc. Tincture of fresh plant during inflorescence, Class I.

Antidotes.—Helon., Puls., Nux vom.

Through the spinal nervous system, *Lilium* has three special centers of action:

- I. SEXUAL ORGANS, FEMALE. *Congestion; Hyperæsthesia.*
- II. POSTERIOR SPINAL CORD. *Hyperæsthesia.*
- III. HEART. *Reflex Excitability.*

Sexual Organs, Female.—*Lilium* acts upon the ovaries and uterus, producing irritation, congestion, sub-acute inflammation, and a bearing-down in the uterine region as if everything would press out of the vagina; it also has some action upon the mammæ, as shown by the cutting, darting pains in these glands.

Dr. Hale, says: "The *sphere of action* of the *Lilium* is clear and unmistakable. The symptoms all point to the *reproductive organs* as the starting point of its pathogenetic effects. Study first its direct effect on the ovaries, the uterus, and the homologous organs in the male. In all, it causes a series of pathological conditions ranging all the way from simple *functional irritation* up to *sub-acute inflammation*, and, finally, nearly all the *uterine displacements*.

"But the action does not stop here. Through its action on the reflex nervous system, which it renders excessively sensitive, a host of sympathetic symptoms occur. Nearly every organ and tissue in the body, even the mental sphere, becomes involved in the general and widespread irritation. Select almost any symptom at random from the pathogenesis, and you will be able to trace it back to its origin in the generative organs. . . . A study of the provings does not render it certain which organ, the uterus or ovary, is first affected. As the ovary is the real center of the reproductive organs, it is probable that it is really the organ first affected.

"The *leucorrhœa* of *Lilium* is peculiar in its character, being acrid and excoriating, causing a rash on the labia, and an intense

irritation of the whole vaginal canal, even to *vaginitis*. As this kind of leucorrhœa is indicative of mucous inflammation, it follows that *Lilium* is indicated in all the inflammations of the generative canal, from the mouth of the vagina to the end of the Fallopian tubes."

Lilium has cured many cases of incipient tumors of the generative organs, according to reports; but these reports were probably due to mistakes in diagnosis, or related to cases of simple enlargement of the ovaries. In neuralgia of the ovaries, however, congestion and hypertrophy of the ovaries and uterus, ante and retroversion, prolapsus uteri, and various mechanical displacements from congestion and sub-involution, *Lilium* has done wonders.

Dose and Duration of Action.—The middle and higher potencies seem to have done the best; and it is claimed by Dr. Dunham that its curative action sometimes takes days or weeks to show itself, which should be remembered when this drug is given.

Heart.—Through reflex action, the functions of the heart are much depressed, or it is in a state of great excitability. *Lilium* has been found useful in cardiac irritability caused by irritation of the generative organs.

Dr. Payne, of Bath, Me., has the honor of introducing this valuable remedy to the profession; and it will be a monument to his name for ages to come.

Therapeutic Individuality.

Sexual Organs, Female.—"Bearing-down in the lower part of the abdomen; worse when standing, with pressure upon the perinæum, relieved by pressing the hand against the vulva."—*W. E. Payne, M. D.*

"Severe pressure in the rectum and anus."—*Payne.*

Prolapsus uteri, with bearing-down sensation, accompanied with palpitation of the heart, and ovarialgia.

Persistent bearing-down in the uterine region, and a feeling as if the pelvic viscera, indeed, the whole abdominal contents, were being dragged downward, even from the chest and shoulders, through the vagina; with a constant desire to support the parts by pressing the hand against the vulva.

In uterine displacements caused by congestion and enlargement of this organ, *Lilium* relieves the congestion and cures the displacement.

Ovarian and uterine neuralgia relieved by pressure.

"Menses ceased to flow when she ceased walking."—*D.*

Menses usually scanty, similar to *Pulsatilla*; wants to die, and knows not why; with yellow-brown, excoriating leucorrhœa.

"Slow recovery after confinement; lochia too long; uterus remains large; must support the vulva to prevent everything from escaping; worse from motion."—*Dr. Farrington.*

"Mammæ tender, cutting pains through left scapula."—*Hg.*

Morning sickness, with frequent, copious urination, and palpitation of the heart.

Urinary Organs.—"Continual pressure on the bladder; wants to urinate all the time, voiding but little."—*D.*

"Frequent desire to urinate during the day, with scanty discharge, and smarting in the urethra after urinating."—*Payne.*

Digestive Organs.—"Pressure in the rectum, with almost constant desire to go to stool."—*Dr. L. M. Kenyon.*

"Sensation as if a diarrhœa would come on, early in the morning; desire so urgent can not wait a moment, with griping pains and urging in the rectum, followed by smarting of the anus."—*Payne.*

Drinks often and much; longs for meat."—*Dr. Farrington.*

Head.—Depression of spirits; weeps much and very timid."—*Payne.*

"Constant hurried feeling as of imperative duties, and utter inability to perform them during the sexual excitement."—*D.*

Profound mental depression, with frontal headache, is a leading *key-note* for this drug, from uterine displacements.

Chest and Heart.—"Dull pressive pain in the region of the heart, with feeling of a load or weight on the chest."—*D.*

"Fluttering and palpitation of the heart."—*D.*

"Heart feels as if squeezed in a vise, alternately grasped and released."—*D.*

Heart feels full to bursting, from congestion and much fluttering; reflex heart affections.

Aggravation.—At night.

Amelioration.—Day-time; fresh air, and keeping busy.

LYCOPODIUM CLAVATUM.

Club Moss.

Habitat: Europe, Asia, America. Trituration of the Spores.

Antidotes.—Camph., Caust., Graph., Puls., Cham., Acon., Coff.

Through the great vegetative nervous system, Lycopodium has five special centers of action:

- I. MUCOUS MEMBRANES. *Atony; Catarrhal Inflammation.*
- II. SKIN. *Brown Liver Spots; Papules; Eczema.*
- III. DIGESTIVE ORGANS. *Slow Digestion; Flătulence; Constipation.*
- IV. LIVER. *Congestion; Hypertrophy.*
- V. LYMPHATIC GLANDULAR S. *Atony; Congestion; Induration.*

Mucous Membranes.—Lycopodium acts powerfully upon the mucous membranes of the lungs and of the kidneys, producing an atonic state, with congestion, catarrhal inflammation, and copious mucous discharges.

Kidneys.—Acting upon the kidneys and bladder, Lycopodium produces frequent painful micturition and cloudy, sedimentous urine, like brick-dust, and sometimes with mucus and blood.

"Dr. Arnold says that he has seen in several cases an increase in the secretion of urine on the administration of Lycopodium, especially when any dropsical affection was present, with diminution of urine.

"Lycopodium affects the mucous membranes of the respiratory, digestive, and genito-urinary organs, and makes the digestive process slow; hence, wind, water, and acidity."—*Dr. C. Dunham.*

Skin.—The skin becomes unhealthy, with itching papular eruption; with brown liver spots, or eczematous, suppurating inflammation, with swollen cervical glands, and sluggishness of the peripheric activities.

Digestive Organs.—Lycopodium produces slow, irregular digestion, flatulence and constipation; also congestion of the liver, with all of its concomitants, constipation, flatulence, etc.

Lymphatic Glandular System.—The glands of the neck become swollen and indurated, there is slow degeneration of the skin, and a general atonic condition of the lymphatic system prevails.

Therapeutic Individuality.

Urinary Organs.—Urinary secretion diminished, with red sand in the urine.

"I find it the best medicine where the patient is suffering from an excess of lithic acid or from gravel, and look upon the copious sediments of this nature as one of the most unerring indications for its choice in dyspepsia."—*Hughes*.

"Terrific pain in the back previous to every urination, with relief as soon as the urine begins to flow."—*G*.

"Red sand in the child's diaper."—*G*. [Prominent key-note.]

"Smarting and burning when passing water, in the female urethra, or drawing, cutting pains through the urethra toward the abdomen. Painless discharge of blood through urethra."—*D*.

"Produces lithic acid deposit in quantities; hence pains in the kidneys and bladder."—*D*. [Frequent urination.]

Calculus, with hæmaturia, urinates quantities of clotted blood; renal colic from the passage of small calculi (*Lycopodium* is often useful here), the pain of a burning, cutting character; urine dark and fetid.

"Before passing water, the child screams with pain; red sand in the urine. Urine scanty, dark red, albuminous, with strangury."—*Hg*.

Mouth and Throat.—"The teeth are painful when chewing or when touched, as if suppurating, exceedingly sensitive."—*Hah*.

"Tongue coated white."—*Dr. O. Huber*. [Sour taste.]

"Numerous blisters on the tongue."—*Hah*.

Troublesome ulcers under the tongue; vesicles on the tongue.

"Great dryness of the mouth."—*Hah*.

Bitter or sour taste, with slow digestion and flatulence.

Swelling and suppuration of the tonsils and glands.

"Feeling as if a ball rose from below up in the throat."—*Hah*.

"Feeling of contraction in throat; nothing goes down."—*Hah*.

Food and drink regurgitate through the nose.

Accumulation of mucus in the throat, with much hawking.

"Great sensitiveness of the submaxillary glands."—*Kochler*.

"Diseases of the throat that begin on the right side and go to the left."—*Lippe*.

Stomach and Abdomen.—Hunger remains immediately after eating, though stomach and abdomen are full and tense."—*Hah.*

"Excessive appetite, followed by distention of abdomen."—*G.*

"She can not eat at all; is constantly satiated and without appetite; whatever she eats, goes against her, even to vomiting."—*Hah.*

"Sudden satiety, great thirst."—*Dr. E. Koehler.* [Hiccough.]

"Sour eructations, the taste of which does not remain in the mouth; but the acid gnaws in the stomach."—*Hah.*

The great characteristic for its use in the digestive organs is excessive accumulation of flatulence, with sour vomiting.

"She has a constant sensation of satiety, takes no food, and, if asked why, replies, she wants nothing, because she is full, and the least morsel causes sensation of fullness up to the throat."—*G.*

"Cramp in the stomach, which is much distended."—*Hah.*

Digestion proceeds very slowly, with flatulence and acidity.

Excessive pressure in the stomach as if having eaten too much.

"Much borborygmus, particularly in left hypochondrium."—*G.*

"Constant sense of fermentation in the abdomen, like a pot of yeast working."—*G.* [Continual rolling of gas very characteristic.]

"Incarcerated flatulence, with tympanitic state of the abdomen, occurring chiefly in old people."—*Dr. Bayes.*

"Much flatus seems to accumulate here and there in the abdomen, in the hypochondria, even in the back, in the region of the ribs and chest, causing tension and bubbling, relieved by empty eructations. This is the leading symptom of *Lycopodium*."—*Hah.*

Great accumulation of flatus in the small intestines, with slow digestion.

"Acidity and heartburn, with unconquerable sleep after dinner."—*Raue.*

Enteritis in infants, caused by indigestion.

Stool and Anus.—"Constipation; almost impossible to evacuate the stools."—*G.*

Constipation must be a prominent symptom when *Lycopodium* is indicated, with spasmodic constriction of the anus, preventing stool.

Aching and pressure in the rectum; worse nights, with bleeding piles.

"Rectum contracts, and protrudes during hard stool, with stitches in the rectum."—*Hg.*

"Varices protrude; very painful to the touch."—*Hg.*

Hypochondria.—Lycopodium is of great value in chronic hepatic congestions, where the liver is very tender on pressure.

"Can not eat to satiety, because it produces a distressed feeling in the hepatic region."—*Hah.*

"Region of the liver sensitive to contact; sore aching as if from a shock."—*Hg.*

"Tension in the region of the liver, as from a cord; can not stretch, or stand upright."—*Hg.* [Chronic hypertrophy.]

"Hepatitis, chronic forms; abscesses; fan-like motion of the alæ nasi; one hot and one cold foot."—*Hg.*

"Violent gall-stone colic."—*Hg.* [Excellent prophylactic.]

"Nutmeg liver, atrophic form."—*Hg.* [Ascites.]

"Especially often, the aching pressure in the region of the liver, like a dull, tensive, aching pressure, on respiration, on bending the body, or on pressure with the hand, sometimes extending to the left side of the abdomen or down the hip."—*D.* [Chronic ascites.]

"Pain in the back and right side, from congestion of the liver, often yields rapidly to Lycopodium 6th."—*Dr. Bayes.*

Dr. Pope says, that, in old hepatic congestions, he has found Lycopodium more useful than any other medicine.

Sexual Organs, Male.—For impotence in the male, Lycopodium high is the best remedy in the *Materia Medica*. Organs cold and relaxed, with indigestion and great despondency.

"Impotence, penis small, cold, relaxed, after onanism."—*Hg.*

"Excessive and exhausting pollutions."—*Hg.*

"Sexual desire and power diminished markedly in males."—*D.*

Sexual Organs, Female.—Menses too profuse, and of too long duration; inclined to be late, with great sadness before the periods.

Chronic suppression of menses, from tuberculosis or cancer.

Sudden suppression from fright, with cutting pains from right to left ovary; dryness of the vagina.

"Profuse leucorrhœa, with cutting pains across the right side to the left."—*G.* [With much flatulence.]

"Chronic dryness of the vagina."—*G.*

"Discharge of wind from the vagina."—*G.*

"Ovaries diseased, right to left; ovarian tumors, ovarian dropsy."—*Hg.* [With slow digestion and great tympanitis.]

Physometra of the uterus, similar to pregnancy, with tympanitis of the whole abdomen. (Many cures.)

"Burning in the vagina during and after coition."—*Hg.*

Inflammation of the external genitals, with sharp pains running round the labia; leucorrhœa, milky and corroding.

"Disposition to miscarriage; moles."—*Hg.*

"Dry, pediculated, painless condylomata."—*Hg.*

"Nipples bleed much, and are very sore."—*G.*

"Nodosities in the mammæ, with stitching pains."—*Hg.*

The pains of labor run upward

Respiratory Organs.—This is a remedy of great value in organic diseases of the lungs. Dr. Pope says: "Few medicines are so valuable in pulmonary phthisis as this, when persistently used. The cough, gastric irritation, exhaustion, and intercurrent attacks of pleurisy, are wonderfully mitigated by it."

Persistent catarrh, with much general weakness, and takes cold very easily; cold air chills him through and through.

Passive catarrh of the air-passages, with copious expectoration.

"Expectoration of large quantities of pus; cough day and night; hectic fever; circumscribed redness of the cheeks."—*Rau.*

This is a grand remedy for cough, and greatly resembles Pulsatilla, Hepar sulphur, and Creosote. The cough is loose, rattling, but expectoration is not easy; cough sounds very loose, but the secretion remains in the lungs very tenaciously; sputa thick, yellow, or greenish.

"I have not failed to observe its vitalizing influence in those forms of bronchitis characterized by copious muco-serous or muco-purulent secretion from emphysema, dilatation of the air-tubes, and senile catarrh, with constant tickling cough, worse at night, numerous loud mucous rattles, with rare and scanty sputa, which are symptoms lying especially within the range of Lycopodium."—*Dr. Meyhoffer.*

"Where the right side is more affected, the cough loose, full, deep, sounding as though the entire parenchyma were softened, the patient raising a whole mouthful of mucus at a time, which in color is a light rust, not much unlike that of Bryonia, but not so thick, more stringy and easily separated, with fan-like motion of the alæ of the nose."—*C. Pearson, M. D.*

"Dyspnoea, as if the chest were constricted by cramp."—*Hah.*

Great shortness of breath during sleep, in lung affections.

"Violent oppression of the chest, worse in open air."—*Hg.*

"Neglected pneumonia; especially with continuing hepatization and purulent sputum; typhoid pneumonia."—*Hg.*

"Paralysis of the lungs. Hydrothorax."—*Hg.*

LYCOPodium CLAVATUM.

"In tedious sequelæ of pneumonia, with expectoration, it gradually stops the emaciation, hectic fever, and foul-smelling night sweats, given in high potency, and allowed to act for a long time, especially in women of *great pluck*, the menses may have been suppressed a year or more."—*S. Lilienthal*.

Fan-like motion of the alæ nasi in respiratory diseases of young people and children.

"Hard, dry cough day and night; great emaciation and prostration."—*C. Wesselhoeft*. [Tuberculosis.]

"Great emaciation of the upper part of the body, while the lower portion is enormously distended."—*Rauc*.

Skin.—General unhealthiness of the skin; dry, hot, burning, itching when warm; humid, suppurating eruptions.

"Eczematous, suppurating eruption on the head, with swollen cervical glands."—*D*. [Dry porrigo of children.]

"Plica polonica."—*Hughes*. [Eruptions bleed readily.]

Grayish-yellow color of the face. (Very characteristic.)

Head.—"Vertigo in the morning when and after rising from bed, so that he reels back and forth."—*Hah*. [From indigestion.]

"Throbbing headache, from motion or coughing."—*Hah*.

"Weak memory; confused thoughts, speaks or writes wrong words and syllables."—*Hah*. [From perverted digestion.]

Hair becomes gray early and falls off, from abdominal diseases.

"One can not read, because the meaning of certain letters is not clear; errs in speaking, because he can not get the right words; but, when the subject is very important, the words are correctly chosen."—*D*. [From indigestion.]

"Aching pressure in the occiput, or over the eyes; the head easily becomes cold, which produces soreness of the scalp."—*D*.

Eyes.—"Disorders of nutrition and function of the deep-seated structures of the eye."—*A. and N*.

"Of great value in hemeralopia; no drug equals Lycopodium in this disease, if black spots floating before the eyes accompany the night blindness."—*A. and N*.

"Hemiopia, in which the right half of the field of vision is obscured, has been restored; cataract has been arrested."—*A. and N*.

Nightly agglutination; styes on the lids, and chronic ulceration.

Chronic nasal catarrh; mucous membrane swollen, can not breathe through it; with otorrhœa.

Fever.—Great chilliness, can not get warm, even by a stove; coldness in bed as if she were lying on ice, with sour vomiting,

and thirst after the sweat; has but little heat. Hectic fever, with copious night sweats.

The chill predominates; comes on evenings, without much heat or sweat.

"Night sweats, cold, clammy; sour, fetid, bloody, smelling like onions."—*Lippe*.

Sweats mostly on chest, and in the forenoon

Aggravation.—Especially from 4 to 8 p. m.; during new moon; from warmth, and from lying down.

Amelioration.—From continued motion after midnight; forenoon, and from warm food and drink.

MAGNESIA.

Epsom Salts.

Chemical Preparation. Trituration.

We use the Carbonate and Muriate more than any other form. Through the filaments of the abdominal sympathetic, Magnesia has three special centers of action:

- I. MUCOUS MEM. (INTESTINAL.) *Increased Secretions; Catharsis.*
- II. KIDNEYS. *Lithiasis; Urine Alkaline.*
- III. SEXUAL O., FEMALE. *Atony; Menses Delayed; Scanty.*

Mucous Membranes.—Magnesia, through the filaments of the abdominal sympathetic, so excites the epithelial cells of the alimentary canal as to produce liquid stools, and it is generally known as a mild *antacid laxative*, but, if it is used continually for a short time, will produce sub-acute inflammation.

Magnesia has an advantage over nearly every other laxative, in that it is tasteless, and rarely causes nausea, vomiting, or colic. Its action is slow, requiring six to eight hours. The stools are not debilitating, and have but little odor. The dose, as a laxative for a child one year old, is from five to twenty-five grains; for an adult, half a drachm to an ounce. If taken for a long time, instances have been recorded where concretions of immense size have formed in the intestines.

The Sulphate of Magnesia, experiments have shown, actually withdraws fluid from the veins. This is proved by the rapid way in which a small portion of intestine isolated from the rest of the tube becomes filled with watery fluid, when the drug is introduced into it.

Magnesia has a great capacity for neutralizing acid in the intestinal canal.

Kidneys.—Through its action on the kidneys, Magnesia will destroy the acidity of the urine, and, if taken for some time, reverse its quality and cause a deposit of the earthy phosphates in the form of white sand. This should be a hint to us for its use in *lithiasis*. Cases of *diabetes mellitus* have been reported cured by Eberle.

Sexual Organs, Female.—Here Magnesia produces an atonic condition of the ovaries, with delayed and scanty menstruation, and catarrhal inflammation.

CARBONATE OF MAGNESIA.

Therapeutic Individuality.

Gastro-Intestinal Canal.—Saliva bloody; stinging pains and much mucus in the throat; bitter, sour taste.

Desire for acid fruit, or meat, aversion to green food.

Sour eructations, the whole child smells sour; great thirst, especially evenings, in cholera infantum.

Catarrhal diseases of the intestinal canal with sour stools, resembling the green of a frog-pond.

"Green, sour-smelling diarrhœa, lasting a long time; many stools day and night."—*G.*

Watery, sour, green, frothy stools (in cholera infantum).

"Much colic, relieved by a green liquid stool."—*G.*

"Diarrhœa of greenish water, with great distention of the abdomen."—*Hah.*

Intolerable pains in the rectum as if pierced by numerous needles.

Excessive distention of the abdomen; sour diarrhœa.

Sexual Organs, Female.—Menses too late or quite suppressed, or too frequent and too profuse, especially at night.

"Menses dark, acid, and thick; washed out with great difficulty."—*G.*

MANGANUM.**Manganese.**

Chemical preparation. Trituration.

Antidotes.—Merc., Coff., Iron.

Great vegetative nervous system, Manganese has six functions:

MEMBRANES. *Congestion; Increased Secretions.*

Cholagogue; Inflammation; Fatty Degeneration.

Destruction of Red Corpuscles; Anæmia.

(PERIOSTEUM.) *Very Sensitive; Inflammation.*

Yellow, Moldy, Fissured; Excoriations; Suppuration.

SPINAL SYSTEM. *Paralysis; Progressive Emaciation.*

Intestinal Mucous Membrane.—"The Sulphate has a disagreeable styptic and metallic taste, the Black Sulphate, and the saccharated Carbonate is free from any taste that of the sugar. The preparations of Manganese are very irritant to the gastro-intestinal mucous membrane, the Sulphate is emeto-cathartic in full doses. In small doses, the salts promote the appetite and digestive function."

It has been fully demonstrated, both on man and on the lower animals, that the Sulphate of Manganese has a powerful effect on the liver. In fact, it is one of our most powerful cholagogues. The bile is greatly increased, but inflammation is not a marked symptom in animals poisoned with the Sulphate. Says: "There seems to be no doubt that the Sulphate has a decided cholagogue effect; for a very large dose produces the result of its cathartic action. . . . Like the Sulphate, it induces acute fatty degeneration of the liver, and its influence upon the *spleen*, as shown by its hypertrophy of this organ in chronic cases. In doses of from one to two drachms, it acts

The association of Manganese with Iron in the human system of nature is exemplified in the human

"Stools difficult to evacuate, in small pieces like sheep-dung."
—*Hartlaub*.

Cramps and drawing pains in the abdomen at night.

"Continual rising of white froth into the mouth."—*G*.

"Slow dentition, with large, distended abdomen."—*G*.

Sexual Organs, Female.—"Much excited at the menstrual crisis."—*G*.

Uterine spasms extending to the thighs."—*G*. [Menses black and clotted.]

"Leucorrhœa after every stool."—*G*. [Os uteri indurated.]

"Hysterical complaints and spasmodic turns; many spasms day and night; with great sleeplessness and fainting fits."—*G*.

Urinary Organs.—"Emissions of urine accomplished only by exertion of the abdominal muscles."—*Hah*.

Generalities.—Great disposition to take cold.

"Much weakness of the limbs."—*G*.

"Swelling of glands, blood boils" (*Lippe*), from indigestion.

"Dreams of robbers in the house; on awaking, will not believe to the contrary until search is made."—*G*.

Affections of the right side, with indurated liver.

Aggravation.—During night; from cold, and out of bed.

Amelioration.—During day; from warmth, and in bed.

MANGANUM.

Manganese.

Chemical preparation. Trituration.

Antidotes.—Merc., Coff., Iron.

Through the great vegetative nervous system, Manganese has six special centers of action:

- I. MUCOUS MEMBRANES. *Congestion; Increased Secretions.*
- II. LIVER. *Cholagogue; Inflammation; Fatty Degeneration.*
- III. BLOOD. *Destruction of Red Corpuscles; Anæmia.*
- IV. BONES. (PERIOSTEUM.) *Very Sensitive; Inflammation.*
- V. SKIN. *Yellow, Moldy, Fissured; Excoriations; Suppuration.*
- VI. CEREBRO-SPINAL SYSTEM. *Paralysis; Progressive Emaciation.*

Gastro-Intestinal Mucous Membrane.—"The Sulphate has an extremely disagreeable styptic and metallic taste, the Black Oxide less so, and the saccharated Carbonate is free from any taste, except that of the sugar. The preparations of Manganese are somewhat irritant to the gastro-intestinal mucous membrane, and the Sulphate is emeto-cathartic in full doses. In small doses, the Manganic salts promote the appetite and digestive function."—*Bartholow.*

Liver.—It has been fully demonstrated, both on man and animals, that the Sulphate of Manganese has a powerful effect upon the liver. In fact, it is one of our most powerful cholagogues; not only is the bile greatly increased, but inflammation of the liver is a marked symptom in animals poisoned with the drug. Bartholow says: "There seems to be no doubt that the Sulphate has a decided cholagogue effect; for a very large discharge of bile is a result of its cathartic action. . . . Like Phosphorus, Manganese induces acute fatty degeneration of the liver." It also has an influence upon the *spleen*, as shown by its great power to reduce the hypertrophy of this organ in chronic malarial poisoning. In doses of from one to two drachms, it acts as a purgative.

Blood.—"The intimate association of Manganese with Iron throughout the economy of nature is exemplified in the human

body. They are found together in the blood, hair, bile, biliary concretions, and renal calculi. The proportion of Manganese to Iron in the red blood-corpuscles, is as one to twenty. As an essential constituent of the blood, it undoubtedly has to do with the constructive metamorphosis of the body."—*Bartholow*.

It acts upon the red globules and plasma of the blood, destroying their vitality and thereby causing anæmia, and is of much value in anæmia, and nervous affections due to impoverishment of the blood.

Osseous System.—The bones become exceedingly sensitive to the touch, with inflammation of both bones and periosteum, with insupportable digging pains at night, and great weakness of the joints.

Skin.—The skin becomes yellow, moldy, and blotchy; every injury tends to suppuration; excoriations, soreness, and fissures in the bends of the joints; jaundice. In jaundice of malarial origin, or from catarrh of the biliary passages, Bartholow has seen excellent results from Manganese.

Cerebro-Spinal System.—Pereira has observed, that, in workmen engaged in the manufacture of Manganese, it produces paralysis of the motor nerves, beginning with paraplegia, without colic or constipation, which makes it differ from Lead. Bartholow says: "Used in large doses and for a considerable period of time, it produces effects analogous to those of Zinc,—progressive wasting and feebleness, a staggering gait, and paralysis (paraplegia). In toxic doses, according to the researches of Laschkewitsch, it causes in animals death by convulsions." According to the same author, poisonous doses cause death by paralysis of the heart; and, when injected into the veins of animals, it causes tetanic cramp, dilatation of the pupil, exophthalmia and death; and after death the heart-muscle does not respond to electrical stimulation.

Therapeutic Individuality.

Blood.—Manganese is a close analogue of Iron, and will be found adapted to similar diseases. I have given it in anæmia with excellent results. Dr. T. J. Comstock gives the Deutoxide of Manganese in chlorosis, if gastric disturbances and loss of appetite predominate.

Bones.—Very sensitive to the touch, with intolerable digging pains at night. Inflammation of the joints.

"The bones are very sensitive; red spots on the skin from inflammation of the bone; ankles are particularly affected; children are unable to walk."—*G.*

Periosteal inflammation extremely painful at night.

Rheumatism.—"Rheumatic affections about the joints, with red, shiny swellings."—*Lippe.*

Skin.—Chronic suppurations of the skin, especially about the joints; every injury tends to suppurate; copious night sweats.

"Every part of body feels extremely sore when touched."—*Hg.*

Malignant ulcers, with blue border following slight injury.

Jaundice from inflammation of the liver.

Digestive Organs.—It is very useful in gastric diseases and liver affections. I would suggest that it be given a thorough trial in biliary calculi, it increases the bile so much.

Weakly people, with much pain in the stomach after eating.

Burning in the stomach or pressing soreness in the epigastrium; gastrodynia and pyrosis; nausea and vomiting.

Cutting in the umbilical region, with great tympanitis; bowels appear loose and shake about; stools of bile and water.

Sexual Organs, Male.—Especially useful in sexual debility; and the Iodide of Manganese has been found of great value in secondary syphilis.

Sexual weakness, with pain in the spermatic cord, and urging to urinate; much itching of the scrotum.

Sexual Organs, Female.—Menses too early and too scanty in anæmic females; much bearing-down pain.

Sudden flushes of heat at the climacteric.

Respiratory Organs.—"Deep cough without expectoration, ceasing on lying down."—*Ruckert.*

"Hard, difficult, dry cough, with irritation in middle of sternum; expectorates with difficulty lumps of mucus; easy expectoration in the morning."—*Dr. G. M. Ockford.*

Hæmoptysis with much anæmia, and palpitation of the heart.

Reading aloud causes a dry cough, with much irritation.

"Rawsness in the larynx; voice hoarse; breath hot and burning."—*Jessen.*

Chronic nasal catarrh; nostrils much stuffed up; sore to the touch, and worse in the evening; bloody discharges.

Catarrh of the Eustachian tube, with stitching pains and whizzing noises in the ears, from catarrh.

"Deafness as if the ears were stopped."—*Langhammer.*

Ill humor; weeping, very despondent; sudden palpitation.
Paralysis, from decay of anterior portion of spinal cord.

Aggravation.—In the night; from talking (cough), from touch; while lying on a feather bed.

Amelioration.—In the open air.

MERCURIUS.

Hydrargyrum, or Quicksilver.

An element found in Europe, Asia, America, etc. Trituration.

Antidotes.—Potash, Iodine, Hep., Atro., Nit. acid, Aur., Mez., Pilocarpin.

Through the great vegetative nervous system, Mercury affects the whole system, penetrating every organ and tissue, but selects more particularly the following sixteen tissues for its special centers of action:

- I. LYMPHATIC G. SYSTEM. *Paral.; Congest'n; Inflam.; Ulcer.*
- II. SALIVARY GLANDS. *Salivation; Excessive Fetor.*
- III. PANCREAS. *Salivation; Conges.; Inflamma.; Hypertrophy.*
- IV. LIVER. *Secretion of Bile Greatly Increased; Jaundice.*
- V. KIDNEYS. *Congestion; Inflammat'n; Albuminuria; Diabetes.*
- VI. MUCOUS MEMBRANE. (INTESTINAL.) *Conges.; Inflam.; Hem.*
- VII. INTESTINAL CANAL. *Increased Peristalsis; Catharsis.*
- VIII. MUCOUS MEMBRANES. (AIR-PASSAGES.) *Catarrhal Inflam.*
- IX. EYES. *Congestion; Inflammation; Ulceration; Iritis.*
- X. SEROUS MEMBRANES. *Inflammation; Effusion.*
- XI. PERIOSTEUM. (FIBROUS TIS.) *Conges.; Inflam.; Rheumat.*
- XII. BONES. *Inflammation; Caries; Nightly Bone-Pain.*
- XIII. BLOOD. *Decom'd; Fibrine, Albumen, Red Globules, Decreas'd.*
- XIV. SKIN. *Vesicular and Pustular Eczema; Jaundice.*
- XV. SEXUAL O., FEM. *Menorrhagia; Amenorrhœa; Miscarriage.*
- XVI. CEREBRO-SPINAL SYSTEM. *Shaking Palsy; Neuroses.*

Lymphatic Glandular System.—As the lymphatic system is the grand center and starting point for the action of Mercury, it will not be out of place to give a general view of the anatomy

and physiology of these glands. After the food has been duly masticated and impregnated with saliva, it is chymified in the stomach, and chyliified in the duodenum. Then the great lymphatic system takes up this chyliferous food by absorption, and prepares it for the nutrition of the body.

"The chyliferous tubes in the small intestines, generally designated as lacteals, do not differ from the lymphatic vessels, properly speaking, since their anatomical structure is entirely the same.

"Lymphatics, like the great venous system, to which the lymphatic system bears a very close resemblance, are distributed throughout every portion of the animal economy. They arise by a network of such delicate structure, that, when injected with Mercury, the whole surface appears changed into a metallic layer. With these networks, the lymphatic vessels communicate; in other words, these networks are said to constitute the closed extremities by which all the lymphatics of free surfaces, such as the mucous, serous, and synovial membranes, the skin, and the lining membranes of the arteries and veins, arise.

"It is in these lymphatic vessels, that the chyle and lymph circulate, and are gradually conducted to their common reservoirs, the right and left thoracic ducts, which discharge their contents into the right and left subclavian veins. The circulation of the fluids in the lymphatic vessels, is carried on through the contractility with which the coats of the lymphatics are endowed.

"For a long time it has been a mooted point whether the great lymphatic ducts in the right and left side of the thorax are the only channels of communication between the lymphatic and the venous systems; or whether the lymphatics communicate with the veins directly. Mascagni, taught the former doctrine; Magendie, on the contrary, maintained that the veins likewise perform the function of absorption.

"The views to which Messrs. Fohmann and Lauth were led by their researches, seem to me, the most plausible. They believe, that, besides the termination of the thoracic ducts in the subclavian veins, there are two other modes of communication between the lymphatic and the venous systems; first, a communication of the lymphatic radicles with the radicles of the veins, which is supposed to take place in the substance of organs; and, secondly, a communication between the lymphatics and veins in the body of the lymphatic glands.

"Whatever may be the exact character of the bond of union between the lymphatics and veins, one thing we know, that the

functions of the lymphatic system are *preliminary* to those of the veins. *It is in the lymphatics that the living organism begins the great process of nutrition*, and prepares suitable material for the tissues.

"We have now arrived at the point where our doctrine of the physiological action and the therapeutic uses of Mercury becomes an intelligible formula, invested with logical consistency, and fraught with important and beautiful results. *It is the lymphatic system which Mercury chooses for its point of attack in the living organism; and it is in the lymphatic system that Mercury meets the inimical morbid force when called upon to combat and subdue it.*

"Mercury acts upon the lymphatic capillaries, as Aconite does upon the capillaries of the venous system. It *diminishes, prostrates, and paralyzes their irritability*, producing a series of phenomena in the lymphatic system exactly similar to the phenomena which Aconite causes in the circulatory apparatus. These are phenomena of *congestion*, attended with symptoms of vascular excitement, similar to, and yet different from, the phenomena of vascular *erethism* characterizing true congestions of the sanguineous capillaries.

"It is from the lymphatic system that the veins derive, in a measure, their power of manifesting vital phenomena. If the lymphatics become *clogged*, or, to use a more classical term, *congested* or *engorged*, must not the torpor of the lymphatic radicles react upon the radicles of the venous system? What the venous system is to the arterial, that the lymphatic system is in a measure to the veins. Torpor of the sanguineous capillaries may lead to acute congestions or inflammations. If this engorgement reaches the venous capillaries through the lymphatic system, the phenomena of congestion or inflammation are of a milder type, the accompanying fever is less acute, and the pulse, instead of being full, hard, bounding, and rapid, as it always is in true inflammation, preserves a *certain softness*, and only becomes *moderately accelerated*.

"Considering that the lymphatics are distributed throughout every tissue and organ of the animal economy, is it difficult to understand that torpor and engorgements of these vessels may lead to an almost interminable series of disorders? Enlargement and induration of glands, effusions into the cellular tissue, suppurations and ulcerations of every tissue through which lymphatic vessels are distributed, and, finally, a universal decay of every organic structure, may be the ultimate consequences of lymphatic weakness and obstructions."—*Dr. C. J. Hempel.*

Salivary Glands.—In describing its action upon the salivary glands, it will be more practical to give its whole action upon the buccal cavity, which will include much of its action upon the mucous membrane of the mouth.

"Of all the usual effects of the full Mercurial operation, *salivation* is the most striking. Immediately preceding it, there is often an erethism of the system, in which, besides the increase of the secretions, or even before this takes place, the patient experiences loss of appetite, has a quick and frequent pulse, and manifests unwonted nervous excitability. If the salivation is profuse, this state may become strongly marked. The first evidence that the system is becoming Mercurialized is shown by a metallic or copperish taste in the mouth and some soreness when the teeth are smartly struck together. The breath has, at the same time, a characteristic fetor [caused by perverted secretions of the lymphatic glandular system]. A red line may also be observed along the attachment of the gums to the teeth of the lower jaw. The redness extends gradually to the whole gingival surface, and more or less to the cheeks, lips, tongue, and fauces; the tongue is coated with a whitish slime, has a sodden look, and bears upon its edges the imprint of the teeth. The salivary glands become swollen and tender, their secretion is augmented and of a ropy consistence, usually alkaline in its reaction and of a penetrating taste and smell. Several pints of saliva may be discharged in twenty-four hours. When Mercurial salivation is excessive, these symptoms sometimes reach a distressing degree. The swelling of the mouth and tongue renders deglutition and speech difficult, if not impossible; extensive ulcers, sometimes coated with false membrane, attack the gums, cheeks, and fauces, and, in healing, may cause permanent adhesions of contiguous parts; œdema of the glottis may occur; the breath becomes insufferably fetid; the teeth loosen and fall out, and caries may attack the remaining teeth, and even the maxillary bones.

"In some rare instances, salivation recurs at remote periods from the original affection. Dr. Strong, of Boston, relates the case of a lady who, eighteen years before his report, was salivated in the month of October. The following February, while using Fowler's solution, she was again salivated, and thenceforth, although she took no more Mercury, except once by mistake, she had annually a recurrence of salivation in the same months as at first, but with gradually decreasing severity. In each attack the symptoms were perfectly well characterized.

"Although infants and young children are seldom salivated, certain exceptions to this rule must be admitted. Dr. J. B. Beck

collected a number of cases which prove that children can be salivated. He saw a child five years old, profusely salivated by five grains of Calomel. Clark met with three cases in children under three years of age; and Percival, one, in which the effect was produced in a child seven months old, by Mercurial inunction. Champouillon reports the cases of two infants, one eleven, the other twelve months old, who were actively salivated by fractional doses of Calomel. Canstatt mentions a boy ten years old who was salivated by working at the trade of mirror silvering. Dr. Rush refers to seven instances of death from Mercury given as a sialagogue to children between three and eight years of age. Dr. S. Jackson saw three cases of children under seven years of age, in each of whom there was a loss of several teeth with their alveoli, in consequence of Calomel being given as a purge in remittent fever. In a fourth case, that of a child three years old, salivation was caused by the application of Mercurial ointment to the face to prevent the pitting of confluent small-pox. Dr. Blair met with a case of severe salivation from Calomel in a boy ten years of age.

"It has been made a question whether Mercurial salivation is not dependent upon the irritation of the gums and mucous membrane of the mouth; and that it sometimes is so, has already been admitted, and illustrated by facts. No doubt, also, salivation usually follows various irritations of this membrane, such as arise from dentition, decayed teeth, and variolous pustules within the cavity of the mouth. It is, perhaps, also true that a portion of the quickening influence attributed to Mercury upon the secretions of the liver and pancreas may be due to its irritation of the stomach and duodenum. But that salivation is not necessarily dependent on any such reflected irritation, is proved by the fact that medicines which do not affect the mouth sometimes occasion salivation; such, for example, as Iodine, Iodide of Potassium, Tartar emetic, Arsenic, Nitric acid, Digitalis, and Copper. Indeed, Mercury itself occasionally salivates without previously causing inflammation of the mouth; and, when it is added that Mercury can be obtained from the saliva, bile, and pancreatic juice of persons or animals that have been salivated, no doubt can be entertained that salivation is due, almost if not quite, exclusively, to the direct operation of the metal conveyed by the blood of these glands, or that the blood itself is so changed by its action on the lymphatics as to produce the salivation.

"Besides the tendency of ulcers on any part of the body to assume an unhealthy appearance, and even to become gangrenous, and of contiguous portions of the cutis—e. g., of the buttocks,

the thighs, etc.—to suffer excoriation, the constitutional action of Mercury may develop ulcers in the buccal cavity, upon the gums, the inner surface of the lips and cheeks, and the tongue, generally attended with salivation. These ulcers usually advance from within outward, raising and then casting off the epithelium, and exposing a red and irritable surface which secretes an acrid fluid. They are irregular in shape, without defined edges, bleed readily, have a dirty, whitish surface, are surrounded with a dark halo, and are apt to run together. Syphilitic ulcers, on the contrary, are more frequently circular, attack the posterior rather than the anterior portion of the mouth, present defined margins, with a copperish hue of the surrounding membrane, and are not apt to extend from the primary seat. It is true, that, under the action of Mercury, syphilitic ulcers may lose their characteristic appearance, and render the diagnosis doubtful; but, in that case, fresh ulcers form, with all the peculiarities of the Mercurial sort. These may be also attributed to a scorbutic taint; but the circumstances of their origin should prevent this error, and also the Mercurial fetor exhaled by the breath. It occasionally happens that hemorrhage, which, indeed, has in some instances proved fatal, is produced by Mercurial ulceration of the fauces. Death may also result from a destruction of the soft parts. A case is reported by Drs. Graves and Stokes, of a child, eleven years of age, who, for an inflammation of the trachea, took eight grains of Calomel in divided doses. Salivation followed, with excessive swelling of the face and neck; ulcers beginning at the corners of the mouth spread to the lips and cheeks, causing an extensive destruction of both; a sloughing ulcer formed on the palate, and the fetor of the breath was excessive. Treatment was unavailing, and death took place on the eighth day. That form of ulceration of the mouth known as gangrenopsis usually arises during a state of exhaustion of the system following disease, especially eruptive fevers and dysentery; the ulcers are of a circumscribed character, generally of the cheek, and follow tumefaction and hardness of the part. The affection known as *cancrum oris*, and proceeding from the same causes as the last one mentioned, begins in the gums, and presents symptoms closely resembling Mercurial sore mouth, including salivation, swelling of the submaxillary glands, swollen, spongy, bleeding, and ulcerated gums, covered with a pultaceous deposit, with loosening and even loss of the teeth. If such a state ensues upon the administration of Mercury, there appears to be nothing by which it can be distinguished from the effects of this medicine, unless it be the existence of a fetid odor which is different from that occasioned by Mercury."—*Stille*.

Dr. Dieterich describes the Mercurial sore throat to be characterized by a dark or bluish redness; great sense of dryness, with hawking of tenacious, glassy mucus; and enlargement of the mucous follicles.

Pancreas.—Mercury affects the pancreas in a manner analogous to its action on the salivary glands. "The pancreas would appear, in an especial manner, to be affected by Mercury. Dieterich attributed the diarrhoea which it usually causes to an excessive secretion of this organ. Dr. Copeland relates the case of a female who was excessively salivated for syphilis, after which she experienced deep-seated pain and heat of the epigastrium, with nausea, inappetence, thirst, and fever, and voided thin stools containing a fluid resembling saliva. After her death, the pancreas, which weighed eight ounces, was red and congested, and its ducts dilated."—*Stille*.

Dr. Hughes Bennett and Dr. Wibmer, in experiments on animals, found in the bodies of those treated with Mercurial frictions, the pancreas greatly reddened and hypertrophied. Its action upon the pancreas is very similar to that of Iris, only more malignant. All writers show that Mercury stimulates the pancreas to pour out an abundant secretion, which, however, is not normal, but a pathological secretion. Atrophy of the pancreas is now known to be the cause of diabetes; and Mercury causes this symptom.

Liver.—Mercury is a powerful cholagogue, and, like the metals in general, is excreted by the liver, and manifests a tendency to accumulate in this organ.

"The only preparations of Mercury which are used as purgatives are *Calomel* and *Blue mass*. Of these, the first is far the more active, and, indeed, is the only one which can be relied on to purge.

"The chief interest in the purgative action of Mercurials, centers in the question as to their influence on the liver. When Calomel is given to a healthy man in moderate purgative doses, green liquid stools are produced, which, after larger doses, are replaced by brown passages. The color of these passages has always been supposed by clinicians to be due to the presence of bile, but recently it has been affirmed that the green tint is owing to a compound of the Mercury itself. Although no chemical proof of the presence of the metal or its salt has, that I am aware of, been furnished, yet it can scarcely be doubted that Mercury is present in the first passages produced by Calomel. The ques-

tion, evidently, is not, Is Mercury ever present in the 'spinach stools'? but, Is it always present? or, in other words, Is it an integrant portion of them? The evidence is not so abundant upon this point as is desirable, yet seems sufficient to furnish a negative answer to the last question. Simon and Golding Bird, in careful analyses, both failed to detect the metal; and, as the recognition of Mercury is an exceedingly simple chemical problem, it seems impossible that these chemists could have overlooked the metal if it had been present. Simon's analysis was performed upon the fifth stool after the administration of a large dose of Calomel. The passage was fluid, perfectly green, had no faecal odor, exhibited a mild acid reaction, and showed, under the microscope, a great number of mucous corpuscles and epithelium-cells. Ether extracted from the solid residue (obtained by evaporation), a considerable amount of fat, which had an acid reaction, contained cholesterine, and was colored by biliverdin. All the other substances, which were separated from the stool by water and alcohol, were more or less colored by bile pigment. Bilin, bilifellinic acid, and biliverdin were found in large quantities.

"The most satisfactory evidence is, however, that furnished by Michea, who examined chemically the faeces under four different conditions: First, the spontaneous dejections of six healthy individuals; no bile was found. Second, green stools of three persons suffering from gastro-intestinal derangement; bile-pigment in one case only, and in that could not be detected after persistent vomiting had ceased. Third, Calomel having been given to eight healthy persons, five men and three women, bile was readily demonstrated in the green passages produced in all the subjects. Fourth, saline and resinous purgatives were given to five persons; but no bile could be detected in the liquid stools.

"To the evidence brought forward in favor of the proposition that Calomel given to healthy men causes an increased escape of bile from the alimentary canal, may be added the conclusive fact, that, in some persons, whose idiosyncrasies render them very susceptible to the action of Calomel, it produces not merely purging, but also vomiting of bile, which is scarcely at all altered.

"From the facts which have just been passed in review, the conclusion seems inevitable that Mercurial purgatives given to healthy persons cause the escape of large quantities of bile from the alimentary canal.

"As is well known, when from any cause bile does not pass into the duodenum, the stools become very pale, of a peculiar

potter's clay, or even white, color. Very frequently, under these circumstances, which may co-exist either with diarrhœa or with constipation, Mercurials will modify the color of the passages and alleviate or cure any symptoms present. In many cases, the Mercurials are, of course, powerless to effect the desired result; but this depends upon the cause being organic, or of some other nature not to be overcome by a mere stimulant to secretion.

"As Mercurials in health increase the flow of bile from the intestine, and as they will sometimes re-establish it in disease when the secretion has altogether ceased, or has been very materially diminished, the conclusion seems to me inevitable that Mercurials have the power of directly or indirectly increasing the secretion of bile. The only objection of any force to be urged against this deduction is founded upon the idea that the drug simply increases peristalsis in such a way as to cause the bile naturally in the duodenum to be swept out instead of being absorbed. The answer to this is embraced in the following facts: Mercurials restore the color of the passages when pale from arrested secretion, often without producing diarrhœa; other even more active purgatives fail to induce the same bilious passages; when diarrhœa exists with clayey stools, the change in the color of the passages caused by a Mercurial may coincide with a not increased, or even a lessened, amount of liquidity; diarrhœa ordinarily does not cause bile to appear in the passages."—*Dr. H. C. Wood.*

The experiments with Mercury upon the lower animals, by such men as Drs. Handfield Jones, Scott, and Hughes Bennett, tend to show that the secretion of bile is diminished rather than increased; but this is no proof that the bile is diminished in the human subject. On the contrary, the diminished secretion is a sign of congestion of the liver, which has been demonstrated in Mercurial poisoning by post-mortem examinations; and this may be accompanied by jaundice, induration, and hypertrophy of the organ.

Mercury has a powerful action upon the lymphatics of the liver. Wibmer says: "In the bodies of those who have been treated with Mercurial frictions, we discover extreme emaciation; the muscles are atrophied, pale; the lymphatic glands, especially in the region where the ointment was rubbed in, enlarged; the pancreas hypertrophied and frequently of a reddish color; the liver enlarged, soft, of a black-brown color; the bile thin and copious; the veins of the abdomen turgid with a thin, dark blood."

When given to promote the secretion of bile, a dose should be given for two nights large enough to act as a purgative. One-

half to one grain will act as a purgative in one night; but, as a rule, it is better to give it in full purgative doses of from five to ten grains. In some cases, it will produce nausea and tormina, but not often.

Kidneys.—Mercury is eliminated chiefly by the kidneys; but they are also aided by the salivary and intestinal glands and the liver. "The kidneys are much affected by this poison. Suppression of urine is a very common phenomenon; and post-mortem investigation shows it to be connected with acute congestion or inflammation of the secreting structure of these organs. The urine is albuminous during life, and the patients die with all the symptoms of uræmic poison. Lower down, we have frequent and painful urination; and sometimes swelling and blackness of the scrotum, with erection of the penis. This, too, is from the Bichloride; but, from *Mercurius solubilis*, two of Hahnemann's provers had balanitis and balanorrhœa; and another (Helbig) reports the following symptoms: 'A number of small red vesicles, at the termination of the glans penis, behind the prepuce, becoming converted into ulcers, the base of which was covered with a cheesy lining.' A similar symptom was experienced by one of the provers of Cinnabar.

"These phenomena are of much interest with reference to the relation of Mercury to chancre. Other facts are mentioned by Trousseau and Pidoux which bear on the same point. They allow that Mercury may cause serious ulceration at the side of the penis or in the vulva. They relate how a dog which Bretonneau had Mercurialized, copulating with one of his kind, had his penis swelled, inflamed, ulcerated, and finally gangrenous. And they state that women laboring under puerperal fever, and treated with Mercurial frictions, were liable to get membranous inflammation of the vulva, followed by sphacelus."—*Hughes*.

According to Salkowski, who experimented with dogs and rabbits, Corrosive sublimate causes an increased secretion and a saccharine condition of the urine of long duration. If this is so, it must come from atrophy of the pancreas; for that is great cause of sugar in the urine.

Mucous Membrane of the Digestive Organs.—On taking Corrosive sublimate, its peculiar sharp and metallic taste will usually be noticed; it produces powerful corrosion of the mucous membrane of the mouth, œsophagus, stomach, and intestines, and leads rapidly to gastro-enteritis of the severest form.

"The *post-mortem appearances* are those of corrosive gastro-enteritis. The mucous membrane of the mouth, throat, and œsophagus, is inflamed, wrinkled, and covered with a white coat. The mucous membrane of the stomach is in some places, especially near the pylorus, converted into dark, very tough eschars. In some cases, ulceration takes place. After separation of the eschars, there may be perforation. Here and there particles of the substance used may be found adhering closely to the mucous membrane. In the small intestines, the appearances are usually normal; but, in the *large intestine*, on the contrary, *severe inflammation, even to ulceration and hemorrhage*, has frequently been noticed. This last appearance is to be looked upon as the beginning of the general action of Mercury."—*Prof. B. Naunyn.*

It will here be proper to note in detail the full effects of Mercury upon the various portions of the *digestive tract*.

The tongue becomes coated, appetite impaired; nausea, vomiting, with oppression and tenderness. "The alvine evacuations become at first feculent, thin, and greenish, and afterward watery and frothy, and pale in color. There may be ten or fifteen stools in the course of twenty-four hours. At the same time, there is a sense of fullness in the abdomen, tenderness on pressure in the epigastrium, and a dull; tensive pain in the same region. The thirst is great, the mouth and skin dry, and the urine scanty. As the diarrhœa augments, vomiting may be superadded, while the skin grows cool and the eyes sunken and dark. The purging may terminate in gastric inflammation. Its symptoms [the purging] are by some attributed to an excessive action of the pancreas."—*Stille.*

Dr. R. Hughes says: "While Mercury has little influence upon the small intestines, the large—cæcum, colon, and rectum—are a special seat of its influence. Diarrhœa not unfrequently accompanies or replaces salivation; and the tendency to tenesmus shows that its seat is the lower portion of the bowel. In poisoning by Corrosive sublimate, the whole tract exhibits marks of intense inflammation, going on to ulceration and sloughing; and the symptoms during life are often those of acute dysentery.

"This is the place to speak of the effect of Mercury upon the intestinal evacuations. The stools produced by it are of various characters. When given as a purgative in the form of Calomel or Blue pill, it causes copious fluid evacuations, of a dark brown or yellowish color,—sometimes, especially in children, of a green hue. I suppose these evacuations to consist in an increased quantity of the biliary and other secretions. The green 'Calomel

stools' of children are generally supposed to consist of bile, altered in tint by superabundant acid in the intestines. Others, however, consider them to be due simply to the presence of the Subsulphide of Mercury in the fæces, their color being a phenomenon analogous to the blackness of the stools in those who are taking Iron. The objection to this view is that they have been induced by doses of Calomel far too small to cause any general coloration of the fæces. The purging caused by Mercurials always tends to assume the dysenteric character; and, in acute poisoning by Corrosive sublimate, the stools are scanty, frequent, and bloody, just as in the idiopathic affection." The dose to act upon the bowels as a purgative, of *Blue mass*, is from one-half a grain to fifteen grains; of *Calomel*, one-tenth of a grain to ten grains.

Mucous Membrane of the Respiratory Organs.—Mercury has here a specific action, affecting especially that of the nose, producing great congestion and catarrhal inflammation, completely occluding the nostrils; and the *Materia Medica* contains no more useful remedy for catarrh, both acute and chronic, especially the latter, than Mercury. In the chronic form, the Iodide is my special favorite.

"Coryza sometimes occurs in Mercurialization; and one of the dogs poisoned by Corrosive sublimate in Dr. H. Bennett's experiments had constant muco-purulent discharge from the nose. [And a dog poisoned with the Cyanuret of Mercury by myself had a complete pseudo-membrane upon the nasal mucous membrane.] Bronchitis and pneumonia have also been observed in poisoning by this substance; and the latter generally complicates the febrile Mercurial eruptions."—*Hughes*.

Eyes.—Inflammation of the conjunctival mucous membrane of a malignant nature is a prominent symptom of Mercury, both in man and animals;—so say Hahnemann, Hering, and Overbeek;—also iritis with effusion of lymph.

Serous Membranes.—It especially affects the peritoneum, producing inflammation with effusion. It also slightly affects the arachnoid membrane, and the synovial membranes of the large joints, producing congestion, inflammation, and ulceration.

Fibrous Tissues, and Bones.—Permanent damage of the osseous structures often occurs; such as caries, with all its accompanying symptoms. The periosteum becomes highly inflamed, with intolerable pains at night. After death, globules of Mercury can be shaken out of the dried bones of subjects who have been

severely salivated during life. Necrosis of the jaw has often been produced by Calomel. "It has long been a question, and is one not yet fully settled, how far Mercury may operate to produce disease of the bones. The tendency of syphilis to develop these affections is well known, and also the great frequency of their occurrence in syphilitic cases treated by Mercury; yet it is certain that they sometimes follow the uses of this drug in cases wholly free from syphilitic taint. Mercurial nodes, it is said, precede the ulcers, and the destruction of tissue proceeds from without inward. They most frequently are seated in the spongy bones of the base of the cranium, or in the ends of the long bones."—*Canstatt*.

Blood.—The effect upon the blood is thus stated by Dr. Headland: "By some inscrutable chemical power, of whose agency we know nothing, it is able to decompose the blood; by some destructive agency, it deprives it of one-third of its fibrine, one-seventh of its albumen, one-third or more of its globules; and at the same time loads it with a fatty, fetid matter, the product of decomposition."

"The action of Mercury on the blood, by which it tends to reduce the proportion of solid materials in this fluid, and thus to impair the nutrition of the organs, is capable, when carried beyond moderate bounds, of occasioning a form of artificial scurvy, some of the elements of which have previously been described. The muscles lose their firmness, fullness, and power, the complexion assumes a pallid or an earthy hue, the breath becomes fetid, the urine is readily decomposed, and diarrhœa is usually present. The gums grow spongy, the hair falls out; dull pains in the bones and joints are felt; œdema of the ankles, or even general dropsy, may form; hemorrhage from the nose, bowels, kidneys, or reopened wounds, takes place, and hectic fever, with tubercular consumption, may terminate life."—*Stille*.

"Recent experiments have shown that small doses of Mercury, as Iron, Manganese, and other metals, have the power to increase the number of red corpuscles, and improve the quality of the blood. It has long been known that this result followed the use of Corrosive chloride in syphilis. The improved methods of counting the number of corpuscles within a given area have alone rendered possible an exact determination of such a delicate question. It remains true, however, that any considerable quantity of Mercury, administered a sufficient time, will affect the quality and composition of the blood; the red globules are diminished

in number; the fibrine loses its plasticity; the proportion of water is increased, and various effete materials, whose nature is unknown, accumulate. Mercury is deposited in all the textures, interferes with the normal nutritive processes, and is found in all the secretions and excretions."—*Bartholow*. [Good Homœopathy.]

Hahnemann, in his treatise on *Venerical Diseases*, taught, that, to cure syphilis, a—

Mercurial Fever had to be produced. How does that sound for small doses? Let those who choose to make fools of themselves and their patients, answer this treatment of our great leader Hahnemann. When we have a specific and malignant poison to antidote, the true physician, like Hahnemann, will use enough of the remedy to produce the desired result, if it does take toxic doses to do it. The fever he produced in his patients is most graphically described by himself. He says: "The patient gets a metallic taste in the mouth, a disagreeable smell in the nose, a painless, audible rumbling in the bowels, an earthy complexion, a pinched nose, blue rings around the eyes, pale, leaden-colored lips, an uninterrupted or frequently recurring shuddering (always getting stronger) that thrills deeply, even into the interior of the body. His pulse becomes small, hard, and very rapid; there is an inclination to vomit, or at least nausea at everything, especially at animal diet, but chiefly a very violent headache of a tearing and pressive character, which sometimes rages without intermission in the occiput or over the root of the nose. The nose, ears, hands, and feet are cold. The thirst is inconsiderable; the bowels constipated, great sleeplessness, the short dreams of a fearful character, accompanied by frequent slight perspirations. The weakness is extreme, as also the listlessness and anxious oppression, which the patient thinks he never before felt anything like. The eyes become sparkling, as if full of water, the nose is as if stuffed with catarrh; the muscles of the neck are somewhat stiff, as from rheumatism; the back of the tongue is whitish. At this period the patient experiences, if all goes on well, some discomfort in swallowing, a shooting pain in the root of the tongue, on both sides of the mouth a looseness or setting on edge of the teeth (the gums recede a little toward the root of the teeth, become somewhat spongy, red, painful, swollen); there is a moderate swelling of the tonsils and submaxillary glands, and a peculiar rancid odor from the mouth, without the occurrence, however, of a notable increase in the secretion of saliva, and without diarrhœa or immoderate perspiration."

All of this is prior to the full development of the first local effects, viz., the stomatitis and salivation; and this Mercurial fever generally lasts seven days, but may last for weeks. It terminates on the occurrence of salivation, a specific rash, or copious perspiration. This fever usually arises between the fifteenth and twentieth days of the treatment by inunction, but more rapidly by internal medication.

Skin.—The action of this drug upon the skin, producing *Mercurial eczema*, is well described by Stille. He says: "The continued use of Mercurial frictions irritates the skin, inducing at first redness and tenderness, and afterward, in some cases, a peculiar eruption, erysipelas, or even fatal gangrene. The cutaneous eruption excited by Mercury was first, it is believed, mentioned by Benjamin Bell, who says: 'It is not an uncommon effect of Mercury to excite an eruption upon the surface of the body. In some, this appears as a miliary rash somewhat resembling measles; while in others, it is considerably elevated, and seems to be produced by a serous effusion between the cutis and scarf skin. In some, the eruption is partial, while in others, it prevails generally over the whole body.' It was also described by Dr. Speers, of Edinburgh, by Dr. Moriarty, and by Mr. Alley, of Dublin, who has given the fullest account of its course and varieties. In its mildest form, this affection consists of innumerable minute and transparent vesicles, on a light rose-colored efflorescence, occupying a large portion of the skin. It is accompanied with a pricking sensation and itching, but not with fever. A severer and febrile form presents an efflorescence somewhat like that of rubeola; and, in a third form, which Mr. Alley styled malignant, there is fever, an intense burning heat of the skin, and extreme soreness of the fauces; the vesicles are of a large size, and the spots of a dark and even purplish color. In this form, when the vesicles burst, crusts are formed of a very unsightly and disgusting appearance. The second form here alluded to has been observed by Baron at the Children's Hospital of Paris, and was produced by Mercurial frictions. The eruption was most abundant everywhere else than upon the places where the frictions had been made; it occasioned neither itching nor smarting, nor was it accompanied by ptyalism. A slight degree of fever was observed during a period of from three to six days, during which the eruption lasted. In some cases of Mercurial cachexia, an eruption of rupia, and also of pustules (ecthyma) has been met with."

The cuticle, hair, and nails often exfoliate, and many have observed pustulation. Purulent ichorous eruptions, from decomposition of the blood, are a marked effect of the drug.

Sexual Organs.—By its action upon the uterus, "in not a few instances, it has occasioned menorrhagia or amenorrhœa, and in pregnant females miscarriage. From an extensive series of observations, Lize concluded that the constitutional action of Mercury upon a husband alone, or upon a wife alone, or upon both together, very commonly results in miscarriage, still-birth, or the premature death of the infant."—*Stille*.

Women who have taken quantities of Mercury, generally bear rickety children. Mercury is also found in the milk; and Mercurialization of the milk has often been used therapeutically in cases of infantile syphilis.

Cerebro-Spinal System.—"Sometimes the influence of Mercury falls almost exclusively upon the nervous system, and produces a peculiar train of paralytic symptoms. This occurs chiefly, if not exclusively, when, as vapor, it finds entrance to the blood through the lungs, and is most frequently seen in those who work in the metal. It is generally the result of long exposure; but that it may be produced in a very short time is proven by the case, related by Dr. Christison, of two barometer-makers who slept one night in a room containing a pot of Mercury upon a stove. One was severely salivated, the other was affected with a shaking palsy which lasted all his life. According to Dr. Sigmond, the attack of Mercurial palsy, which is sometimes sudden, sometimes gradual, begins with unsteadiness and shaking of the extremities, and of the muscles of the face, which movements interfere with walking, speaking, or chewing; the tremors become frequent, nay, almost constant; 'every action is performed by starts.' If the exposure be continued, sleeplessness, loss of memory, and death terminate the scene. A peculiar brownish hue of the whole body, and dry skin, generally accompany the disease. In its first stage, it may be mistaken for St. Vitus' dance; in its later stages, for delirium tremens. According to Noel Gueneau de Mussy, these two forms are rather distinct varieties than different stages of Mercurial tremors. In the latter, the affection simulates *paralysis agitans* in its shaking movements; in the former, the motions are violent, and occur independently of the will of the patient, even when he is lying quietly in bed.

"In other cases, neuralgic pains are a prominent result of Mercurial exposure; and sometimes epilepsy is produced, or the

intellect is especially affected, and insanity, most frequently of a melancholic type, results. According to Dr. Sigmond, the peculiar paralysis of lead-poisoning, including the drop-wrist, has been known to follow persistent Mercurial inunctions."—*Dr. H. C. Wood.*

The mental and physical depression are marked and distressing. The susceptibility to external impressions, particularly to that of cold, is excessive, and especially at night.

The neurotic effects of Mercury are manifest chiefly in the musculo-motor and the ideational and emotional spheres.

Therapeutic Individuality.

All the symptoms are worse at night, from warmth of bed, and in damp, cold, rainy weather.

Profuse perspiration that does not relieve, accompanies most complaints where Mercury is indicated.

Easily bleeding ulcers, established suppuration. Glands or bones.

Looseness of the bowels, diarrhœa, dysentery, or gastro-intestinal inflammation.

It is a glandular remedy; and no drug prevents suppuration as certainly as Mercury, in the acute and sub-acute form.

Glandular suppuration in lymphatic, scrofulous systems.

Cold, clammy sweat on the legs and thighs at night.

Gums spongy, bleeding, with fetid breath; marked fetor.

Symptoms are aggravated just after getting warm in bed; and are attended with a disposition to perspire.

"Embarrassment to the portal circulation, and hence to the whole venous system, probably explains why 'the pains become intolerable at night,' to the patient; why 'he feels better when walking than lying or sitting'; why the 'evening airs' or 'chilliness' make him worse, and why he has sweat at every movement."—*Dr. Bayes.*

Mind and Head.—"Weak memory; slow to answer questions."—*Leroy.*

"Intellect very weak; every mark of imbecility."—*Dr. Oliver.*

"Low, muttering delirium."—*Kopp.* [Gastro-intestinal inflammation.]

"Anxiety and restless; fancied fears; tries to flee away."—*Hg.*

"Excessive sleepiness; sleepiness with anxiety; restless sleep."—*Hg.*

"No sleep after midnight; frightful dreams; nightmare."—

Dr. Jessen.

"Dull, stupid feeling, with dizziness."—*Hg.* [Biliousness.]

"Vertigo as if in a swing; with nausea; everything turns black."—*Hg.*

"Constant rotary motion of head; even on lying down."—*Hg.*

"The headache corresponding to Mercury is of a compressive and constrictive character, the eyes yellowish and slightly congested; partial or complete deafness."—*Dr. Bayes.* [Rheumatic or portal.]

"Sleeplessness from embarrassed portal circulation, with beating at pit of the stomach, sometimes profuse sweat."—*Dr. Bayes.*

Congestion to the head, with a feeling as if it would burst.

"Head feels as if in a vice, with nausea, worse in open air; from sleeping and eating; better in the room."—*Hg.*

"Tearing in the head; heat and sweat; worse at night; in warmth of bed, better toward morning."—*Hg.*

"Hydrocephalus; sutures open; precocious; dirty color of the face; body bathed at night with sour, copious sweat."—*Hg.*

"Exostosis on the hairy scalp; very sore to the touch; worse at night in bed."—*Hg.* [From syphilis.]

"Lacerating, tearing, and stinging in bones of the skull."—*Hg.*

"Fetid, sour-smelling, oily head sweats; worse nights."—*Hg.*

"The scalp painful to touch, with falling-out of hair."—*Hg.*

For eczema and tinea of the scalp, Calomel ointment, composed of one drachm of Calomel to one ounce of lard, is a precious remedy, if applied locally morning and night. It may be used in glycerine the same way; or two grains of the Bichloride to the ounce of water. The annoying itching of many skin diseases is wonderfully allayed by Mercurial ointment. Lice on the head or pubes, are destroyed at once by the ointment made with Nitrate of Mercury or Corrosive sublimate. Wash the hair with spirits of wine to dissolve the gluey matter attaching the nit to the hair. Syphilitic nodes will often yield to the external use of the Oleate of Mercury. The Oleate of Mercury destroys pediculi immediately, with their ova, when the Ointment fails. It is made with a five-per-cent solution of Oleate of Mercury in Oleic acid, with one-eighth part of Ether.

Eyes.—Sub-acute and chronic conjunctivitis, lids inflamed, with swollen, inverted tarsi, sensitive to light.

"In blepharitis, there is no better remedy if the lids are red and swollen, sensitive to heat, cold, or touch; profuse lachryma-

tion, *burning and acrid*, making the lids sore; worse at night and from warmth in general."—*A. and N.*

For ophthalmia neonatorum with acrid discharges, if caused by syphilitic leucorrhœa in the mother, Mercury is the best remedy we have.

"In superficial inflammations of the conjunctiva and cornea, either ulcerative, phlyctenular, or catarrhal, Mercury is of especial service; the ulcers of the cornea are very vascular; the dread of light is intense; lachrymation profuse, burning, and excoriating; muco-purulent secretion is very *thin and acrid*; always worse at night."—*A. and N.*

"Mercury has always been, and probably always will be, the principal remedy for iritis; especially if syphilitic, with sore, tearing, boring pains around the eye, greatly aggravated at night."—*A. and N.* [With Atropia locally.]

"Retinitis or choroiditis. Mercury is the great remedy for diseases of the optic nerve and retina, in workers in foundries."—*A. and N.* [Or from syphilis.]

In rheumatic ophthalmia it is of great value. Use the Corrosivus when the pains are sore, aching, and burning. Worse at night.

Black points, flies, and fog before the eyes. Amaurosis.

Ears.—In chronic catarrhal inflammation of the middle ear, Mercury is one of our best remedies,—and probably the best remedy we have; and the most suitable preparation to use is the *Mercurius dulcis*. Dr. H. C. Houghton reports ninety-three cases in the *Hom. Times* treated with the 1st, 2d and 3d centesimal of Calomel with gratifying results. He says the swelling of the mucous membrane is reduced so that the Eustachian tube becomes patent.

"The ear was inflamed internally and externally, with pain partially cramp-like, partly sticking, and a feeling as if stopped by swelling."—*Rummel*. [Sub-acute and chronic otorrhœa.]

"Sticking and burning deep in both ears, worse in the left."—*Hartman*.

"Bloody and offensive matter flows from the right ear, with tearing pain."—*Hartman*. [From chronic catarrh of the middle ear.]

"The ears seem stopped, with roaring in them."—*Hah.*

Roaring, ringing, and singing in the ears, with deafness.

Ulceration and caries of bones of the ear; chronic catarrh.

Nose.—This is our best remedy for acute, sub-acute, and chronic catarrh, with a copious discharge of corroding mucus.

"Acute and chronic catarrhs, where the discharge is mucopurulent. I prefer in these cases the Iodide, 3d decimal. The heavy pain in the malar bones, frontal sinuses, and at the root of the nose, is soon subdued."—*Dr. Bayes.*

Copious hemorrhages from the nose, in putrid diphtheria.

Frequent sneezing, with fluent coryza, at the commencement of catarrh.

"An offensive odor from the nose as in violent coryza."—*Hah.*

"Acrid pus flows from the nose, smelling like old cheese."—*Hartman.*

Inflammation and caries of the nasal bones, with fetid ulceration. Use the Iodide, especially if syphilitic.

Mouth.—"In affections of the mouth, Mercury holds a high place. It is not homœopathic to the true membranous stomatitis,—the muguet of the French; but it is so to thrush, which always tends to ulceration. It is rarely necessary, however, to give anything but Borax in this disease, when the morbid process is limited to the mouth. For simple ulceration, as well as syphilitic, of the mucous membrane of the buccal cavity, Mercury is specific, especially when followed up by Nitric acid. Cancrum oris is another idiopathic disease of this part which closely resembles the pathogenetic effects of Mercury, and is often cured by it.

"Mercury has cured idiopathic salivation, as from pregnancy. Drs. Marcy and Hunt recommend in this affection a wash for the mouth made of two grains of the 2d trituration of Corrosive sublimate in a pint of water. In inflammations of the salivary glands, Mercury must always be the leading remedy. I may specify two,—mumps, in which we always give it; though, whether it affects the natural course of the disease, I can not say; in the tenderness and swelling, threatening suppuration, left behind after scarlatina, or appearing during typhus, in which the Iodide of Mercury acts most beneficently.

In sub-acute inflammations of the lingual mucous membrane, and even in acute glossitis, *Mercury* has acted well. Dr. Guernsey points out a very heavy, thick, yellow moist covering of the tongue, as indicating the drug, saying it should rarely be given when the tongue is dry. Dr. Quin notes *sweet taste* in the mouth as a characteristic symptom.

In our present uncertainty as to the action of Mercury on the teeth, it would be premature to fix its curative place in their diseases. If it is true that its abuse can cause them to become carious, the medicine ought to be valuable in checking this process.

More certainly it is of value in periostitis of the sockets, a frequent cause of toothache; its steady use here will often supersede extraction. The feeling of the teeth as if elongated is a special indication for Mercury."—*Hughes*

"The best local application for ulcers in the mouth, or on the tongue, is the dry powder of the 1st centesimal trituration of *Mercurius solubilis*."—*W. H. Holcombe*. [Or *Aphthæ*.]

"Grayish ulcers on the inner surface of the lips, cheeks, gums, tongue and palate."—*Hah*. [Locally.]

"Gums bleed and are inclined to ulcerate about the teeth."—*G*.

Teeth sore and loose and feel too long; odontalgia; worse at night, with periosteal inflammation and ulceration. The gums bleed from the slightest touch, with fetid breath.

Saltish, metallic, coppery, slimy or putrid taste.

"Moist tongue with great thirst."—*G*. [Breath very fetid.]

Red tongue, with much burning and great thirst.

"Swelling of the tongue, which is covered with a whitish, thick, tenacious coat, that is detached in patches."—*Hah*.

"Tongue swollen and so soft on the margin that it shows the imprint of the teeth in scallops, which look ulcerated."—*Hah*.

"Accumulation of soapy saliva, often slimy and drawn out in long strings."—*Hornburg*. [In tonsillitis.]

The secretion of slimy, stringy mucus from the mouth is characteristic, especially if suppuration is going to take place in quinsy.

Profuse salivation, with fetor of the breath; salivary glands greatly swollen. See *Pilocarpia*; tongue shows the marks of the teeth.

Throat.—To arrest suppuration of the tonsils, nothing can equal *Mercurius corrosivus* 1st decimal trituration, applied locally with a camel's-hair brush; two or three applications will arrest it in half a day at the commencement. At the first start of a common cold, when the nose is discharging freely, half a grain drawn up into each nostril two or three times arrests the cold.

"Ulceration of the tonsils."—*Hah*. [Use the Iodide.]

"Throat constantly dry; it hurts as if too tight posteriorly; a pressure in it as if he swallowed, yet he was constantly obliged to swallow, because the mouth was always full of saliva."—*Hah*.

"Suppuration of the tonsils, with sharp, sticking pains in the fauces when swallowing."—*Hah*. [And ropy saliva.]

Dryness and pain in the throat as if an apple-core was sticking in it, that causes constant inclination to swallow.

"Unable to swallow liquids, they return through the nose."
—*Hah.*

"In my own experience, the angina calling for Mercury, is of a sub-acute or torpid character, with pale or bluish swelling; and ulceration is often present. Its power of checking suppuration makes it often useful in quinsy. Hahnemann praises it here; and Dr. Ringer writes: 'When in quinsy or scarlatina the tonsils are so enlarged as almost to meet, and when the difficulty in swallowing is nearly insuperable, and it may be there is even danger of suffocation—if at such a time a third of a grain be taken every hour, in a few hours the swelling is much reduced, and the danger and distress much removed. The effect of Mercury in such cases is often most signal.'"—*Hughes.*

"The throat affection that calls for Mercury, is a parenchymatous tonsillitis, in which the pain is throbbing, the tonsils and fauces yellowish-red, often covered with a thin false membrane; the breath fetid, the tongue pale, flabby, and indented by the teeth; the pain on deglutition much greater than on empty swallowing; salivation increased; throat sore externally when pressed."—*D.*

In diphtheria, especially the putrid asthenic form, the *Cyanuret of Mercury* should be used. Usually, the pseudo-membrane is of a dark gray color, which I believe to be the color characteristic of this drug. I have often seen this exudate not only covering the tonsils, but the whole of the soft palate, uvula, and fauces, extending up into the nares, completely occluding the nostrils. A few cases of croupal diphtheria with complete aphonia have been cured with this drug; but the majority die when it takes the croupal form.

"False membranes which are thick and putrid, and occupy the whole throat, extending to the nasal fossæ; enormous, painful glandular swellings; pallor and shining tumefaction of the face, with very decided adynamia,—yield rapidly to the *Cyanuret of Mercury*."—*Dr. Beck.*

Chronic syphilitic angina, with much redness and swelling of the whole fauces; ulceration of the larynx and complete aphonia; the whole back part of the throat covered with a white, fetid exudate; the chronic catarrhal inflammation extends to the nose, with complete destruction of the nasal bones, and excessively fetid breath; accompanied with tearing nightly pains. [The first three triturations of the Iodide of Mercury should be used.]

Stomach.—"Qualmishness and a peculiar sense of weakness and tenderness at the pit of the stomach, are very characteristic of Mercury."—*D.* [In biliousness.]

"Very sensitive about pit of the stomach and abdomen."—*G.*

Dr. P. Dudley esteems the Perchloride, 2d or 3d trituration, very highly in chronic gastric catarrh, with distention and soreness of the epigastrium and transverse colon.

"Sudden vomiting of milk in infants, which so often depends upon degenerative change of the mucous membrane of the stomach."—*Hughes.*

The thirst of Mercury is violent and constant, taking large quantities at a time; the patient can not be satisfied, but calls for water constantly.

Excessive hunger, or loss of appetite, in bilious diseases.

Nausea and bitter vomiting of bile, with salivation.

Abdomen.—Abdomen hard, and distended with gas.

"Violent stitches in the hepatic region, on account of which he could not breathe nor eructate."—*Hah.*

Inflammation of the liver, with great tenderness of the organ, and much jaundice; sub-acute and chronic suppuration.

"He can not sleep on the right side, for the intestines are sore as if pressed."—*Hah.* [Acute enteritis.]

In gall-stones, with jaundice and much biliary colic, I have seen cathartic doses of from ten to twenty grains of Calomel expel the calculi and cure the jaundice and disease.

Jaundice with nausea and vomiting in malarial fever.

"I have already shown that experimentation, while opposing the notion that Mercury stimulates directly the secreting function of the liver, shows it to cause congestion of the organ and jaundice. In both these hepatic affections the medicine ranks *facile princeps* among the Homœopathic practitioners; and it acts well in quite minute doses, as the 3d, 6th and 12th attenuations. It is an admirable remedy for what is called a 'torpid liver,' where deficient secretion of bile is indicated by white, costive, and offensive stools, loss of appetite, and depression of spirits. That there is congestion present in these cases, seems indicated by the dull pain in the right hypochondrium, of which the patient usually complains. So in simple jaundice, as it occurs in children, Mercury will do all that is required. For acute parenchymatous inflammation of the liver, Dr. Gerson speaks of Calomel in our doses as highly as do the Indian practitioners of the old school."—*Dr. Hughes.*

Atrophia mesenterica in children.

Stools.—The stool of Mercury is marked by the great characteristic that the *desire for stool is not relieved* by the evacuation; must sit and strain for an indefinite period.

"Much colic, relieved by a bloody stool, with tenesmus."—*G.*

"Faint, sickish pain in the abdomen, entirely relieved by a muco-sanguinolent stool, with severe, prolonged tenesmus."—*G.*

"Yellow, or mucous and bloody, or dark green stools with tenesmus."—*G.*

For mucous and *serous* diarrhœa in children, Calomel is the specific. (In hot summer weather.)

"Stools, dark green, bilious, frothy; whitish watery; green mucous; bloody mucous; green, slimy, bloody. Before and during stool, violent and frequent urging; after stool, violent tenesmus."—*J. B. Bell.*

"The child's health is bad; digestion imperfect; generally with annoying flatulent distention; and three or four pale, clayey, pasty, stinking motions are passed in the day."—*Ringer.*

"Very slimy stools, especially if mixed with blood, accompanied by pain and straining. The salient indication for employing the Bichloride is the slimy character of the motions. Sometimes the slime is very tenacious, and, being colored with blood, is described by the mother as 'lumps of flesh.' One grain in ten ounces of water, teaspoonful doses."—*Ringer.*

"Ineffectual urging to stool every moment, with tenesmus."—*Hartman.*

"Diarrhœa of green mucus, with burning and protrusion of the anus."—*Hah.*

In dysentery of great violence, stools of mucus and pure blood, with excessive tenesmus and colicky pains before and during stool, and tenesmus after, Corrosive sublimate is the specific.

Urinary Organs.—Urine scanty, red, with strong smell.

Urine highly albuminous. (Mercurius corrosivus.)

Suppression of urine, or it is passed with great difficulty, with tenesmus of the bladder; urine filled with mucus.

"Urine extremely turbid soon as voided, and depositing a sediment."—*Hah.*

"Constant desire to urinate, but only a little passed."—*Hah.*

"Hæmaturia, with violent, frequent urging to urinate."—*Hg.*

Urine mixed with blood, pus fresh like lumps of mucus.

In the sub-acute form of Bright's disease, after exudation has commenced, Mercurius corrosivus, in the attenuations from the 3d to the 12th, is one of our best remedies, especially in those cases where constitutional syphilis is connected with it; then the Iodide should be used, followed by the Iodide of Potash.

Sexual Organs, Male.—"Burning in the urethra when urinating."—*Rummel*.

"Swelling of the forepart of the urethra, with suppuration between the glans and prepuce, which is red, and hot to touch, and very painful when walking and on touching, with severe pain in forehead, and rough, itching eruption on the hands."—*Rummel*.

Gonorrhœa, the discharge green and painless, worse at night.

"Gonorrhœa at first thin, afterward thick; at last with biting pain on urinating, stitches extending back through the urethra."—*Hah*. [Chronic prostatitis.]

"Urine passed in drops with much pain."—*Hah*.

"Great swelling of the prepuce, as if it were distended with air or water to a blister."—*Rummel*. [Edema from Rhus tox. poisoning.]

"Inflammation of glans penis, with burning pains."—*Rummel*.

"Vesicles on the forepart and sides of the glans penis; they eat deeply in and spread; several small white blisters, which also ooze fluid, but soon disappear."—*Hornburg*.

Phagedenic ulceration of the glans penis. (Calomel locally.)

For chancroids, acute form, use locally and internally.

"Feeling of coldness in testicles, afternoons, evening."—*Hah*.

Lascivious excitement, with nocturnal emissions mixed with blood, from chronic prostatitis.

Total loss of sexual power; impotence from syphilis.

"Nightly emissions mixed with blood."—*Hah*. [Prostatitis.]

Great inflammation and hypertrophy of the testicles.

Inflammation and ulceration of the inguinal glands. (Iodide.)

This is the proper place to speak of that vilest of poisons—syphilis. All writers speak of syphilis as a *blood disease*. This doctrine, I must dissent from. Notwithstanding the blood is contaminated most thoroughly with this malignant poison, it is *not* a blood disease, but is located in the *lymphatics* and *organic nervous system*, the blood-making organs. The *center* and *habitat* of this poison is in the *lymphatic glandular system*, and not the blood. Through this system, it poisons and destroys every organ and tissue in the human frame, by constantly manufacturing the virus, and giving it to the blood, where it is distributed to every tissue in the body.

"It is, I think, very helpful to regard primary, secondary, and tertiary syphilis as stages of a chronic exanthema, differing only in its prolonged course from the acute affections which bear the same name. It is certain that Mercury has some influence over this malady, and that of a specific kind. Few would maintain nowadays that it antidotes the venereal poison as an alkali neutralizes an acid; and none, I think, would suppose that it eliminates the *materies morbi* by its ptyalism or other evacuation. We must look, therefore, to its physiological effects to see what it is capable of doing as a therapeutic agent, and how it does it.

"I think that the result of such an inquiry must be that the physiological effects of Mercury present only an imperfect parallel to those of the syphilitic virus, that the two series of phenomena correspond at certain points, but diverge widely at others. Thus, to the syphilitic pyrexia, whether of the stage of incubation or that of eruption,—to the febrile chloro-anæmia, with its rheumatoid pains (aggravated by rest and warmth of bed) in the head and face, behind the sternum, and around the joints, and ending in falling of the hair,—to all this, Mercury is strictly homœopathic. But is it so to the resulting local affections,—to the primary indurated sore and buboes, to the papulous or squamous syphilides? I think not. Plastic effusion into the cellular tissue is hardly the effect of a drug which is so decidedly liquefacient. Such glands as are affected by it, swell from irritation approaching to inflammation, and tend to suppurate; while the eruption proper to hydrargyrosis is vesicular or pustular. The sore throat, however, and, possibly, the iritis, laryngitis, and periostitis of this stage, find in it a true *simile*. But, when we have the gummy infiltrations of the tertiary period, again Mercury fails to present, actually or even probably, any analogous feature. So that, although Mercury may affect every part which syphilis affects,—though a mere 'organopathy' would regard it as a *simile* thereto,—yet true Homœopathy can not allow that it acts in all these parts after a like manner, and must hence, I submit, refuse it the name. If Mercury can do anything to resolve the primary indurations, the secondary dry syphilides, and the tertiary infiltrations, it must do it by its physiological actions, and we must not think that we are Homœopathizing in so using it. On the other hand, we are strictly within the lines of our method when we treat with small doses of the drug the specific febrile condition of incubation, or before eruption, and the ulcers of mouth and throat, and the sub-acute periostitis of the secondary period. As regards the first named, it has been

recently ascertained that Mercury, when given in syphilis, increases the number of the red globules of the blood. We have already seen that it diminishes them in health; and here also it is noted, that, if the drug be pushed too far, it reduces their number again. . . .

"The conclusion seems to be that it is only at certain points and stages of the syphilitic process that Mercury can antidote it after a specific manner; that is (again to quote our own Drysdale's definition), by the absorption of its whole physiological into its therapeutic action. But these points and stages are important enough. The primary and secondary blood disorder; the affections of mouth and throat; the sub-acute inflammation of the periosteum; and, perhaps, the iritis and laryngitis, are to be included among them. Again, the whole series of manifestations of hereditary syphilis are within its range, whether they take the form of bullæ, abscesses, and marasmus, or the slower and less fatal variety which consists in snuffles, stomatitis, readily moistening syphilides, pale, earthy color of the skin, iritis, and epiphyseal periostitis in the long bones. And further uses are suggested by the results of its abuse. When the local manifestations become *destructive*, when the eruptions take the form of impetigo or rupia, when rapid ulceration affects the mucous membranes, or when caries invades the bones,—here, when the cause is not Mercury itself, its administration is most effective. Thus, Dr. Gerson speaks highly of Corrosive sublimate in the phagedenic or sloughing chancre; and Dr. Yeldham has known Mercurius solubilis arrest phagedenic ulceration when other remedies ordinarily recommended had failed; and Dr. G. Wood says: 'I have seen the lowest condition of shattered health from syphilitic cachexia, which for years had resisted various treatment under the idea that it was Mercurial disease, get well under a careful administration of Blue pill, as if cured by a charm.'"—*Hughes*.

In some cases of syphilitic iritis, to save the eye, Mercury will have to be given strong enough to touch the gums and affect the breath before the disease will yield; and this is justifiable to save such a precious member of the body as the eye. Atropia to dilate the pupil should be used with the Mercury.

I take great pleasure in giving the eminently practical remarks of Prof. R. Bartholow upon the treatment of syphilis. He says: "The most important application of Mercury therapeutically, is in the treatment of *syphilis*. It may be regarded as specific in this disease. The reaction which set in against its

use a few years ago has certainly led to important modifications in the mode and quantity in which Mercury should be given; but the fact has been conclusively established that Mercury, in a certain sense, is antidotal to syphilis. As Mercury arrests the proliferation of the syphilitic virus in the blood, this agent should be used with the earliest manifestations of the specific character of the infecting sore. Mercury is not indicated in chaneroid, or non-infecting chancre, and should not be used. If the chancre have the characteristic quality of the infecting sore, small doses of one of the Mercurial preparations should be begun and continued steadily until all induration has disappeared. The important point is, not to induce ptyalism. It is now conceded that the danger of a relapse will be very much lessened by continuing the Mercurial treatment for some time after local manifestations have ceased. The ill effects of a Mercurial course may be prevented by the use of small doses, by careful attention to hygiene, and by lessening the dose, or discontinuing the remedy entirely, whenever soreness of the jaws can be developed by smartly closing the teeth. By the adoption of these precautions, a Mercurial course may be continued without important interruptions until the period of incubation has entirely passed.

"Various methods are resorted to for the introduction of Mercury into the organism:

"1. *Inunction*.—Before practicing inunction, the patient should take a warm bath, or, at least, wash the parts to be operated upon with soap and water. From fifteen to thirty grains of Mercurial ointment is the quantity required for each inunction. The Oleate of Mercury, in proportion of fifteen to thirty per cent in the solution, may be substituted for the Ointment; but the Oleate is to be applied with a brush, and not be rubbed in. Sigmund, the great advocate for the inunction method, has prescribed certain rules, which should be followed. The Ointment should be rubbed in with moderate friction by the palm of the hand; on the first day on the legs; second day on the thighs; the third day on the abdomen and sides of the chest; on the fourth day on the back; on the fifth day on the arms. Mercurial inunctions are not borne equally well by all patients. Some are easily salivated, and others suffer from eczema or erythema. Moreover, the inunction treatment is filthy and troublesome, and it should, therefore, be restricted to those cases in which Mercurials are badly borne by the stomach. [Excellent in congenital syphilis. Twenty per cent ointment the size of a pea of the Oleate of Mercury should be placed in the axilla night and morning.]

"2.—*Fumigation*.—Various Mercurial preparations may be used;—the Sulphuret, the Iodide;—but Calomel is the best. The apparatus consists of a spirit lamp, a plate to hold the Calomel, surrounded by a shallow vessel containing water, a blanket large enough to cover the patient and the apparatus. The Calomel is volatilized by the heat of the lamp, which, together with the vapor of water, is deposited on the skin of the patient. About fifteen minutes is the time required for the bath, and the Calomel used is from eight to fifteen grains. The method of fumigation is especially adapted to cases of tertiary, with ulcerations, when the state of the patient is such as to forbid the internal administration of Mercurials. . . .

"*Local Uses of Mercurials*.—The Acid Nitrate of Mercury is one of the best caustics for the destruction of *chancroid*. It should be applied with a glass rod after the surface of the sore has been well cleaned. It is now conceded that destruction of an infecting chancre does not prevent systemic infection. *Syphilitic warts* and *vegetations* are amenable to the same treatment. *Erosions* and *ulcerated* indurations are best treated by 'black wash' (Calomel eight grains, lime-water, one ounce), or 'yellow wash' (one grain of Corrosive sublimate to an ounce or two of lime-water). The surface of the sore may be kept wetted with these lotions."

Sexual Organs, Female.—Menses too profuse, attended with colic and much anxiety.

Leucorrhœa, generally excoriating, greenish, or bloody, greatly aggravated by night; venereal ulcerations of the os.

Itching, burning, smarting, corroding leucorrhœa, with sensation of rawness in the vagina; discharges of flocks of pus and mucus as large as hazel nuts; worse at night.

Vulva much swollen, with a raw, sore feeling; worse at night.

"Prolapsus of the vagina, with sensation of great rawness; worse at night."—*G.* [Corrosive profuse leucorrhœa.]

Mammæ swollen hard, with ulcerative pains; suppuration.

Abscesses in the breast, with ulcerated nipples; syphilitic origin.

The secretion of milk becomes so impregnated with Mercury that nursing infants who take it are Mercurialized. Nurses have been Mercurialized in order that the milk might be the vehicle for administering Mercury to nursing babes suffering from congenital syphilis, with much success.

Pain in the mammæ as if they would ulcerate at every menstrual period. (Use the Iodide.)

Miscarriage from secondary syphilis.

Respiratory Organs.—Mercury is adapted to a dry cough that is passing into the moist stage, after the primary symptoms have been nearly subdued by Aconite, Belladonna, or Bryonia; greatly aggravated at night.

Dr. Hirschel says: "Where is there a more certain, a more specifically acting remedy for the appropriate kinds of cough of a catarrhal, inflammatory, organic nature, running from the fauces through the trachea and down to the finest bronchi? It is decisive in acute affections, ameliorating in the chronic, is a slime-loosening resolvent, and a restorative. Where there are *roughness, burning*, feeling of soreness from the fauces down to the sternum, with hoarseness of voice, dry cough, raw, concussive, exhaustive, naturally exacerbated; sputum ropy, watery, spittle-like, nasty, bloody; catarrhal headache, coryza, diarrhoea, fever, non-ameliorating night sweats,—here is the real province of Mercurius."

"Cough that sounds and feels as if everything in the chest were dry; with pain in the chest and small of back."—*Hartmann*.

"Catarrhal cough, with yellow muco-purulent expectoration."—*Bayes*.

"Violent fluent coryza, with an acrid watery discharge, making the nose and lip red and very sore."—*D*.

In acute coryza, Mercurius corrosivus, 2d decimal trituration, used as a snuff once an hour, in my hands makes a perfect cure in one day.

"Flying pains in all parts of body from coughing."—*Gregg*.

"Stitches in the right chest, on sneezing and coughing."—*Hartman*.

"Shortness of breath on going up stairs."—*Hah*.

Sensation of burning and dryness in the chest.

"Suppuration of lungs after hemorrhages or pneumonia."—*Hg*.

"Hoarse, rough voice; burning rawness in the larynx; fluent coryza and sore throat."—*Hg*.

"Palpitation of the heart on slightest exertion."—*Hah*.

Skin.—Ulcerations and eruptions are swollen and have a raw appearance. (Locally as well as internally.)

"Watery vesicles and blotches, turn yellow, mature."—*G*.

"Prurigo, the itching is so intolerable that it almost sets one crazy, especially when getting warmer than usual while at work or in bed."—*R. W. Martin, M. D.*

"As regards the action on the skin, the eruptions itch; the discharge from them is acrid, excoriating adjacent surfaces. Indeed, this is a general characteristic of the secretions under Mercury, from the discharge in ophthalmia to the intestinal evacuations. They cause smarting and excoriation. Intertrigo is usual."—*D.*

"Herpetic spots and suppurating pustules, sometimes running together; forming dry and scaly spots, or crusts, with acrid discharges."—*Hg.* [Locally and internally.]

Skin dirty yellow, rough and dry; jaundice from malaria.

"Jaundice, with biting itching over the abdomen."—*Hah.*

In jaundice from hepatic congestion, no remedy equals Mercury.

Excessive night sweats of strong odor, that give no relief.

"Primary and secondary syphilis; round, coppery-red spots shining through the skin."—*Hg.* [Acute form.]

Readily bleeding ulcers; base lardaceous; greatly aggravated at night.

Abscesses, boils after pus has formed, with glandular enlargement.

Variola during the suppurative stages. (Locally and internally.)

In pruritus ani and vulvæ, Calomel ointment will often quickly give great relief. In many forms of skin disease, the ointment or lotion will be of untold service in advancing the cure. In tinea capitis, the Calomel ointment or glycerole is of great value. In synovitis, Mercurial ointment greatly promotes the absorption of the fluid effused into a joint. In syphilitic condylomata, Calomel dusted over them generally removes the trouble. The acid Nitrate of Mercury applied to tubercular lupus will often cure; the pain of the Mercury can be relieved by covering the spot with Collodion. In glandular swellings from syphilitic infection, Mercurial ointment is of great value. Dusting Calomel on wounds to destroy and drive away *maggots* in hot weather, has been found extremely efficacious. *Eczema* of the margins of the eyelids is quickly cured by the use of Mercurial ointment (Citrine ointment).

Fever.—The sphere for the use of Mercury, is found in adhesive inflammations of serous membranes, to arrest suppuration, and heal ulceration.

Mercury is forcibly suggested in the three great eruptive fevers, measles, scarlatina, and small-pox.

"Mercury suits well the exanthem and the catarrhal symptoms of ordinary measles, and may, with Aconite for its fever, do

all that is required in its treatment. In scarlatina, its place is in the anginose form of the disease; where its swelling, ulceration, and tendency to gangrene make it exquisitely homœopathic, and where it is thoroughly efficacious. [Use the Cyanuret or Iodide.] In variola, it takes up the treatment where Tartar emetic has—if it has—to leave it; namely, where, in spite of the former remedy, the pocks are going on to suppuration, and the secondary fever is setting in. It is here highly praised by all Homœopathic writers."—*Hughes*.

Rheumatism, with profuse odorous perspiration, which gives no relief, and the pains are intolerable at night.

Frequent chills alternating with heat, from acute catarrh.

"Chill in the morning when rising, but more generally in the evening after lying down, as from cold water poured over one; not relieved by the warmth of the stove;—at night with frequent urination;—alternating with heat, often only on single parts;—internal with heat on the face."—*Hg*.

Catarrhal fevers, with violent and constant thirst for cold drinks.

Profuse and sour-smelling night sweats; cold and clammy.

"Complaints often increase during perspiration."—*Hg*.

"Intermittent fever; evening chill; heat and violent thirst, or thirst toward morning; during sweat palpitation; nausea and fetid, sour sweat."—*Hg*. [Copious sour night sweats.]

Great chilliness when going into the open air.

Profuse sweat on every motion, soaking through bed-clothes, staining the linen yellow; or oily perspiration; from suppuration.

"Chilliness over the whole body, commencing on the right arm, and right side of chest."—*H. C. Allen, M. D.*

"In worm fever caused by *lumbrici*, it is one of my leading remedies. To cure *ascarides*, use an injection of a weak solution of Corrosive sublimate, or apply Mercurial ointment in the rectum.

After scarlatina, anasarca, with œdema of face, hands, and feet.

Of no use at all in the ordinary typhoid fever, but of great use in the catarrhal form.

Sweat with all complaints that gives no relief.

Limbs.—"Trembling of the hands and tongue."—*Dr. Hess*.

"Trembling of the hands, impossible to hold anything, with great weakness."—*Van Burger*.

Constant trembling of the hands; can not hold them still for a moment.

"Great weakness of the legs so that he can scarcely stand."—

Dr. Hess.

Nightly bone-pains, drawing and tearing in all the limbs, aggravated by warmth and at night; periosteal rheumatism, with nodes.

Anasarca of all the limbs, particularly of the feet.

"Tearing in hip-joint and knee; beginning suppuration."—*Hg.*

"Arms and thighs sore to touch; can hardly move them."—*Hg.*

Cold sweat on the feet, with general night sweats from malaria.

Bone diseases, particularly worse at night; from syphilis.

Bruised feeling in small of back; rheumatoid inflammation.

Meningitis, with violent pains in the spine. Tearing pains in the coccyx, relieved by pressure.

Aggravation.—In the evening and particularly at night; from heat of bed; during perspiration; in cold evening air and wet weather; lying on the right side; during motion, and after sleep.

Amelioration.—From rest; during the day; after breakfast, and during work.

MEZEREUM (DAPHNE).

Spurge Olive.

Habitat: Europe, America, etc. Tincture of the fresh bark before inflorescence, Class II.

Antidotes.—Bry., Rhus., Merc., Kali hyd., Acon., Nux vom., Acids.

Through the cerebro-spinal nervous system, Mezereum has eight special centers of action:

- I. MUCOUS MEMBRANES. *Violent Gastro-Intestinal Inflam.*
- II. KIDNEYS. *Catarrhal Inflam.; Hemorrhage; Albuminuria.*
- III. LUNGS. *Rheumatic Catarrhal Inflammation.*
- IV. UTERO-VAGINAL M. MEM. *Catarrhal Rheumatic Leucorrhœa.*
- V. SKIN. *Vesicular Inflammation; Painful Ulcerations.*
- VI. SERO-FIBROUS TISSUES. *Rheumatoid Inflammation.*
- VII. LYMPHATIC GLAND. SYSTEM. *Congestion; Secretions Acid.*
- VIII. CEREBRO-SPINAL SYSTEM. *Congestion; Rheumatoid Inflam.*

Mucous Membranes.—The most of the action of this drug is spent upon the *gastro-intestinal mucous membrane*. After death, inflammation of the gastro-intestinal mucous membrane is the most prominent pathological symptom found. "Eating a few berries is sufficient to excite very severe pain in the stomach, vomiting and violent diarrhœa. Brandt and Ratzeburg report that a child vomited inordinately after eating two of them. Lange states that the peasants of Brunswick employ it as a purgative, eight grains of the powdered seeds being sufficient to produce twenty evacuations, and also that the women often produce abortion by its use. . . . A hardy peasant who was much troubled with hæmorrhoids, took forty berries as a laxative. He was soon attacked with severe colic, continual vomiting, and almost incessant purging, with bloody, slimy stools, and complete prostration, followed with giddiness and disturbance of the head. On the following day, his face was pale, cold, and collapsed, and the pupils dilated; he recognized no one, and suffered unquenchable thirst, with burning heat in the mouth, fauces, œsophagus, and stomach. The epigastrium, and indeed the whole abdomen, was pain-

fully sensitive to the slightest touch; voice weak and tremulous; breathing anxious, laborious, and short; the pulse frequent, unequal, hard, and contracted; urine acid and blood-red; the limbs cold, and the whole body covered with a cold sweat. Patient recovered in four weeks."—*Stille*.

Limbké says: "The first effect of the drug is a *catarrhal*, and finally a *phlegmonous*, inflammation of the mucous membrane of the mouth and fauces."

Espanet says: "Mezereum deeply affects the tissues, and its inflammation of the mucous membrane shows the character of sub-acuteness and chronicity, the underlying cellular tissue being slightly swollen. It is an inflammation of the interstitial tissue, caused by serous exudation, by which the loosened epithelium falls off, and excoriations are left. The burning, which some compare to that caused by Pepper, has the peculiarity to be preceded by a sensation of coolness. The sensory nerves of the mucous membranes, with their tender epithelium, are less protected against external chemical influences than the external skin; the effect is, therefore, more rapid and penetrating. The epithelium also desquamates more rapidly than on the external skin, where the interstitial process of exudation must priorly separate the epithelial scales from their base by the formation of the vesicles; and, analogous to the cutaneous vesicles, we also find here painful burning vesicles on the tongue and gums."

Kidneys.—The mucous membrane and fibrous tissue of the kidneys are attacked by Mezereum, as shown by the stitching, pulling pain in the kidneys, with crampy sensations before urinating, with bloody urine, fresh and uncoagulated, but not so copious as that caused by *Cantharis*. It also causes albuminuria.

Uterus, and Vaginal Mucous Membrane.—Hahnemann found it would produce *blenorrhœa* of the urethra and vulva; and *leucorrhœa* of years' standing has been cured by it.

Mucous Membrane of the Lungs.—"In the nose, the acrid, irritating Mezereum causes dryness, and thus prevents the olfactories from receiving sensations; hence, diminution of smell; the sensation of burning and smarting causes severe sneezing, and, in consequence of the soreness, hemorrhages and acrid, bloody, foul-smelling, excoriating discharges. This morbid process necessarily extends to the respiratory tract, causing there a *catarrhal* swelling and inflammation, and drawing the sensitive *vagus* into co-affection. We find this to be especially the case in the *larynx*.

a continuation of the affected fauces, and whose mucous membrane rests upon a cartilaginous stratum. The same happens in the larger bronchi, diminishing their lumen, and causing thereby dyspnœa, hoarseness, and heavy speech. In the same proportion as the cartilaginous rings gradually become lost in the bronchi, and only membranous vesicles, provided with an internal epithelium and vascular net, remain, the same primary Mezereum-process appears, which, in the external skin, manifests itself by pricking and itching, and as irritating, spasmodic cough in the ends of the sensitive fibers of the vagus. The dry, sometimes severe, cough is generally seated deep in the chest, and is mostly nervous."—*Dr. Adolph Gerstel.*

Skin.—"The skin is very susceptible to the action of Mezereon. When fresh or when softened by soaking in water, the bark acts as a rubefacient, and at length occasions vesicles, which sooner or later discharge copiously a watery fluid, and leave behind moist, painful, and offensive sores, which not unfrequently are surrounded with pustules, and are extremely difficult to heal. The juice of the leaves, when rubbed upon the cheek of a girl of fair complexion, produced a burning pain, and swelling of the whole face, especially of the nose, eyelids, and forehead, which soon assumed the aspect of erysipelas with vesicles. To these symptoms, were added a constant, violent, and painful sneezing and obstruction of the nostrils. Delirium, insufferable tensive pain in the temples, tormenting dryness of the fauces; cough, hectic fever, high-colored urine, and death."—*Stille.*

The power of Mezereon as a *counter-irritant* to excite a steady and permanent irritation of the skin, has made it a complete substitute for Cantharides. To produce vesication, the *fresh* or dried bark, after being thoroughly wetted with vinegar, should be kept bound to the skin, from twenty-four to forty-eight hours. To keep up a permanent discharge, Mezereon ointment is the best that can be used.

Its most prominent effect when given internally is the uncontrollable and unbearable itching, as found in humid tinea, and herpetic eruptions. This is caused by the secretions of the lymphatics being acid. It is found useful in eczema, herpes, pruritus, impetigo, erysipelas, and boils.

Fibrous Tissue.—According to Adolph Gerstel, the grand starting point or focus whence all the symptoms from Mezereon emanate, is in the *connective tissue*, the connecting medium be-

tween different organs; the fasciæ form the genuine sero-fibrous membranes. *As especially vegetative activity prevails in the connective tissue, we can expect also that the general character of Meze-reon-affection will distinguish itself in the form of anomalies of vegetation.* The spaces or cells of connective tissues are always filled with a liquid, vapory exhalation of the circulatory system, where also the most minute vascular and nervous branchioles are imbedded; and, of the former, it is especially the terminal branchioles of the arterial system and of the ganglionic nerves, from which the Mezereon-affection originates, and which secondarily causes manifold reflex actions."—*Gerstel.*

The fibrous tissues especially acted upon by this drug are the periosteum, muscular fascia, synovial membranes, interstitial fibrous tissue in glands, galea aponeurotica, dura mater, and joints. It produces interstitial exudation, with its manifold symptoms.

"Mezereum attacks, in preference, such places as show no substratum of adipose tissue and such as rest on bones (tibia, maxillæ, cheeks, hairy scalp). The same holds good in the mucous membranes; and we find it, as well, in the periosteum, especially of the long bones; and here, again, more in the tibia, galea aponeurotica, periosteum of the facial bones, tarsus and carpus; the boring pains appear simultaneously in different parts at different times, principally on the knees, tibia, carpus, ears, and maxilla inferior."—*Gerstel.*

The joints have a bruised, lame feeling in them.

Glandular System.—The salivary glands become enlarged, with increased secretions. The enlargement is due to interstitial exudation in the fibrous tissue; the gland cells themselves are not much acted upon. In all probability, Mezereum acts upon the *pancreas*; but it is not proven yet. The secretions of the lymphatics are perverted so as to produce great acidity of the secretions.

Cerebro-Spinal System.—Large doses of this drug produce complete narcotism, with giddiness, tensive pain in the head, dilated pupils, convulsions, syncope, and death. Its action on the cord, posterior portion, is shown by the great chilliness and diminution of vital turgor. Gerstel says: "These sensations are only consequences of the immediate action of a morbid stimulus attacking the spinal cord, which causes, by reflex action, contraction of the cutaneous tissue; and thus arises the cutis an-

serina, the roughness, dryness, and brittleness. This may cause simultaneously an internal accumulation of blood, just as we see it from the action of cold air."

Therapeutic Individuality.

Rheumatism, Syphilis, and Bone Affections.—Flying, stitching pains are characteristic of this remedy.

Nervous rheumatism, or rheumatic neuralgia, worse at night, with flying, stitching pains along the long bones.

"Boring, pressing pains, coming like lightning, which leave the parts numbed."—*G.* [Periosteal rheumatism.]

"Periostitis and swelling of bones, especially on the tibia, with most violent nightly pains in the bones."—*G.*

"Exostosis, and osseous enlargements, when of a syphilitic character. Hufeland recommends it very highly for such affections; he has effected cures in cases where Mercury proved entirely inadequate. A patient who had been afflicted a long time with the most distressing bone-pains of the skull was very speedily cured by a decoction of two drachms of the bark of Mezereum. In several places, the skull-bones had become enlarged, and there was reason to suspect the presence of extravasation or an exostosis pressing upon the brain."—*Hempel.*

"Secondary syphilis discloses itself by tearing pains in the fibrous membranes of those bones which are the least covered by flesh, and they swerve, like rheumatic pains, from one ligamentous formation, from one bone to another, become finally fixed at some spot, more rarely at several, a stasis originates, and in consequence an exanthema on the fibrous tissue of the bone, forming a tubercle or vesicle containing a fluid or pultaceous mass. The bone itself becomes secondarily affected by the deliquescence of the tubercle and the increased vascular activity."—*Dieterich.* [Use Iodine locally over the node; of great value.]

"Violent pain in the tibia as if beaten, or as if the periosteum were torn off, after midnight disturbing sleep."—*Hah.*

Violent nightly pains in the bones of the feet; rheumatism.

"Stiff pain in the nape of the neck, and external cervical muscles, more on the right side."—*Hah.* [Tense, swollen, preventing motion.]

"Rheumatic pains in the muscles of the scapula, making motion difficult."—*Hartlaub.* [Trembling of the limbs.]

Head.—"Hypochondriac and despondent; takes no pleasure in anything; everything seems to him dead, and nothing makes a vivid impression upon his mind."—*Franz.*

Thinking is very difficult, and he is very angry at trifles.

Can not recollect anything his mind is so confused.

"Very violent headache; the head so sensitive it was painful on the slightest touch; after vexation."—*Hg.*

"Pain in the bones of the skull, aggravated by touch."—*Hah.*

"Sensation over the whole head as if intoxicated, or as if he had been up all night."—*Hartlaub.* [From indigestion.]

"Headache extending from the root of the nose into the forehead, as if everything would press asunder, with pain in the temples when touched; with great heat and perspiration on the head, with chilliness in the rest of the body in the morning."—*Hah.* [Catarrhal rheumatism.]

"Head covered with a thick, leathery crust, under which pus collects and mats the hair."—*Dr. Wahle.* [Eczema.]

Eyes.—"In eczematous inflammations of the lids, face, and head, characterized by *thick, hard scabs*, from under which pus exudes on pressure, Mezereum is especially useful. In blepharitis, pustular conjunctivitis, and abscess of the cornea, or ciliary neuralgia."—*A. and N.*

"Much pressure in the eyes, with a sensation of dryness, as if the conjunctiva of the lids were inflamed."—*Hartlaub.*

"Obstinate jerking of muscle of the left upper lid."—*Gersdorff.*

"Lachrymation, with smarting in the eyes."—*Hg.*

Ears.—"Sensation as though air were distending the right external meatus, afterward left."—*Hartlaub.*

Scrofulous rheumatic otitis, with purulent discharge, after scarlatina.

Nose.—Sub-acute catarrh with excoriating discharges.

"The right nostril much inflamed, swollen, painful."—*Hartlaub.*

"Dryness, sneezing; fluent coryza; soreness, and burning."—*Dr. Jessen.*

"Nasal catarrh, thin mucous discharge, makes the nostrils sore."—*Gersdorff.*

"Diminished smell, nose almost constantly dry."—*Hartlaub.*

Mouth.—An excellent remedy for toothache, with sensation as if the tooth were blunted and too long, and torn forcibly from the maxilla, in syphilitic or rheumatic subjects.

"A characteristic symptom is increase of pain by touch or chewing, by heat, motion, and horizontal position."—*Gerstel.*

"Burning in the tongue extending to the stomach."—*Hughes.*

Burning of the whole mouth like pepper, with salivation.

"Scraping, burning in the palate and fauces."—*Hartlaub*.

"Burning in the throat and pharynx."—*Hartlaub*.

Dry, fatiguing cough, with heat and dryness in the fauces.

Stomach.—"Great hunger and appetite, noon and evening, or complete loss of appetite."—*Hartlaub*.

"Beer tastes bitter, causes vomiting, worse from wine."—*Hg*.

Feeling of nausea in the throat as if he would vomit, or bitter vomiting, with complete loss of appetite.

Severe burning in stomach, with acute or sub-acute gastritis.

Abdomen.—"Stitches in the left side, in the region of the short ribs; or dull pains in the spleen."—*Dr. Link*.

"Loud rumbling and noises in the abdomen from flatulence."—*Hartlaub*.

Very offensive flatus per anum, with tympanitis and enteritis.

Stool.—Stools dark brown, hard balls, much straining.

"Many discharges of fetid flatus, more before stool; soft, brown, sour, fermented stool,—contains glistening bodies,—undigested. Worse in the evening."—*Hg*. [Excellent in rheumatic dysentery.]

Acute dysentery; stools of mucus and blood, much tenesmus.

Chronic diarrhœa, with much tympanitis; cutting, colicky pains, stools of mucus or watery; severe cholera morbus.

Cholera infantum, with nausea, vomiting, watery diarrhœa.

"Prolapsed rectum, which remains strangulated; very painful when touched."—*Hempel*. [Stitching, burning pain.]

Urine.—Sticking, tearing pains in the region of the kidneys; urine hot, and often loaded with blood.

"Secretion of urine diminished."—*Hg*. [In rheumatic diseases.]

"Hæmaturia preceded by crampy pain in the bladder."—*Hg*.

"After urinating, a few drops of blood are passed."—*Hah*.

"Urine hot, with reddish sediment."—*Hg*. [In gastro-enteric diseases.]

Sexual Organs, Male.—Heat and swelling of the penis, with much pricking pain in the glans; from acid urine.

Rheumatic gonorrhœa. Testicles and scrotum swollen.

Sexual Organs, Female.—"Menses too soon, profuse, and long lasting."—*Hg*.

• Ulceration of the cervix, with bloody albuminous discharge.

Corroding, acrid leucorrhœa, in syphilitic or rheumatic women.

Respiratory Organs.—Much hoarseness, with a burning, dry feeling in the trachea; dry, racking cough.

"Hoarseness, with cough and rawness in the chest; when he has eaten anything, he must cough until he vomits."—*Dr. Link.*

The Mezereon cough is dry, with constricting pains across the chest; or stitching pains; rheumatic in nature, with much pain.

"Asthmatic constriction and oppression of the chest."—*Dr. H. C. Allen.*

Skin.—The itching of the skin at night is so intolerable that the patient can not sleep; vesicular erysipelas.

"Ulcers covered with thick whitish-yellow scabs, under which thick yellow pus collects."—*Dr. Wahle.* [Excellent counter irritant.]

"The child scratches the face continually; it becomes covered with blood; in the morning, the face is covered with a scab, which is constantly torn off, leaving raw, flat pustules."—*Dr. Wahle.*

"Ulcers easily bleeding, sensitive, painful at night; vesicles appear around the ulcers that burn like fire."—*Dr. Wahle.*

Scurf like fish scales on scalp, chest, thighs, and back.

Papular, vesicular, and pustular eruptions; acute erysipelas.

Aggravation.—Evening, night, motion, contact, and damp air.

Amelioration.—Cold, dry open air; during the day; wrapping up the head.

MILLEFOLIUM.

Yarrow.

Habitat: Europe, America, etc. Tincture of whole plant coming into bloom, Class I.

Through the spinal nervous system, Yarrow has one special center of action:

I. VENOUS CAPILLARIES. *Contraction; Hemostatic.*

Vascular System.—Upon the venous capillary vessels, *Millefolium* has a powerful styptic action, as shown by its great curative action in arresting active hemorrhages from the nose, lungs, bowels, and uterus.

Therapeutic Individuality.

No remedy in the *Materia Medica* is more useful in arresting active hemorrhages from the nose, *lungs*, bowels, and *sexual organs* of women; atonic constitutions.

"Hæmoptysis and other hemorrhages in consequence of violent exertions."—*Hg.* [Oppression and palpitation.]

Hughes says: "The hemorrhage of *Millefolium* is more active than that of *Hamamelis*, and less connected with expulsive action, cough and vomiting, than *Ipecacuanha*."

"Excessive palpitation, and bloody sputum."—*Hg.*

Obstinate chronic hemorrhages from all the outlets of the body, with malaise and great weakness.

Menorrhagia and metrorrhagia, with congestive headache.

Hemorrhages from the bowels in typhoid fever, with tympanitis.

Aggravation.—Evening and at night.

Amelioration.—During the day.

MOSCHUS.

Musk.

Musk Deer; in East Asia. Trituration of the inspissated secretion from sac near prepuce.

Through the cerebro-spinal nervous system, Moschus has three special centers of action:

- I. CEREBRO-S. SYSTEM. *Excitement of the Excito-Motor System.*
- II. SEXUAL ORGANS. *Excessive Venereal Excitement.*
- III. CIRCULATION. *Increased Vaso-Motor Capillary Spasm.*

Cerebro-Spinal Nervous System.—"Moschus has a great and wonderful power over the whole nervous system. It quickens the circulation, raises the animal temperature, and congests the brain, producing a drowsiness and intoxication, and causes a sense of oppression and anxiety in the chest. According to Sundelin, about fifteen minutes after taking a scruple of Musk, a feeling of excitement or intoxication is experienced, with a quick-

ened, full, soft, and more frequent pulse, and the skin is slightly moistened. These symptoms continue for about two hours, and do not leave behind them the least sense of lassitude, or confusion of the senses. The breath, perspiration, and urine diffuse a strong Musky smell, even upon the day following the experiment. Barbier found the same smell also in the excretions of those who had taken Musk, and could detect it upon his own fingers after merely feeling the pulse of one of those persons. The serous cavities, and indeed the whole body, were found impregnated with the odor in the case of a person who had taken Musk immediately before death."—*Stille*.

In Joerg's experiments upon eight persons, he found as follows: "Doses of from four to fifteen grains were followed by fullness and oppression at the epigastrium; by an increase in some cases, and in others by a diminution of appetite; the throat and œsophagus were dry, yet there was no thirst; there was a slight wandering of the mind, and giddiness, tightness about the temples, neuralgic pains of the head; and some disturbance and weakness of the mind. In several cases, gaping, drowsiness, and lassitude followed; and several sensitive persons displayed considerable excitement of the nervous system, quivering and twitching of the whole body. In general, the pulse was more frequent by several beats than usual, and at the same time rather fuller, with increased sense of warmth, and moderate perspiration. The effects of the drug usually terminated in six or eight hours."

Sexual Organs.—Through the cerebro-spinal nervous system, "Musk has decided action upon the sexual organs. It excites the sexual instinct, even in old men and women who had never experienced the least symptoms of sexual desire. A robust man who had been completely impotent for four years past, in consequence of a cold, recovered his virile powers by grinding up Musk for his employer."—*Hempel*.

Therapeutic Individuality.

Sexual Organs, Female.—This is one of the most useful remedies we have in hysterical paroxysms and nervous excitement of the heart.

Nervous women and children with laryngismus stridulus.

"I know of nothing which so rapidly dissipates an hysterical attack, even when it has gone so far as insensibility."—*Hughes*.

"Hysteric spasms, with fainting; crying one moment, and the next moment bursts out in uncontrollable laughter."—*G.* [Coldness and fainting predominate.]

"Nervous suffocative constriction of the chest."—*Hughes.*

Nervous palpitation of the heart, with copious watery urine.

Musk is a capital stimulator of the nervous system, in hysteric fainting or spasms.

"Violent sexual desire, with intolerable titillation in the genital organs."—*G.* [In both male and female.]

"Menses too early, too profuse, with intolerable titillation in the genital organs."—*G.* [Great disposition to faint.]

Digestive Organs.—Sight of food makes her sick.

Mouth and throat dry and hot; bitter, putrid taste; great thirst.

"Eructations, with hot saliva in the mouth."—*G.*

For spasmodic nervous hiccough, no remedy excels Moschus, especially if occurring in hysterical subjects.

Aversion to food; eructations; nausea and vomiting; presive, burning pains, and distention of the stomach.

"Vomiting of food, then subsequent vomiting, and more vomiting."—*G.*

Excessive distention of the abdomen, with pinching pains.

Great tympanitis in hysterical women, with fainting.

Copious watery nightly diarrhoea, with great tympanitis.

Kidneys.—Moschus has made some good cures of diabetes.

"Diabetes; profuse urination; great thirst; emaciation; perfect loss of sexual desire, and sugar in the urine."—*J. A. Young.*

"Urine, watery, profuse; scanty, or thick like yeast."—*Jessen.*

Burning in the urethra, with great nervous excitability.

Skin.—Coldness of the skin is a leading characteristic of Musk, with much nervous trembling, and frequent fainting.

Great constriction of the chest, with spasmodic suffocation, with involuntary movements of the extremities.

Inflammatory diseases complicated with great nervous hyperæsthesia and sub-delirium; coma vigil; subsultus and fibrillary palpitations; out of proportion to the graveness of the disease.

"Spasmodic membranous croup, greatly aggravated by sleep, aggravation after sleep is a marked symptom."—*R. Ludlam.*

Aggravation.—From cold and in the open air, and from sleep.

Amelioration.—From warmth and in a warm room.

NATRUM MURIATICUM.

Chloride of Sodium.

Chemical preparation. Trituration and Aqueous solution.

Antidotes.—Phos., China, Apis, Ars., Camph., Carbo veg., Eucal., Sulph.

Through the great vegetative nervous system, Natrum muriaticum has eleven special centers of action:

- I. BLOOD. *Anæmia; Great Loss of Red Corpuscles.*
- II. LYMPHATICS. *Secretions Excessively Excoriating.*
- III. LIVER. *Hypertrophy; Anæmia; Jaundice; Despondency.*
- IV. SPLEEN. *Hypertrophy, with Great Anæmia.*
- V. SALIVARY GLANDS. *Increased and Perverted Secretions.*
- VI. MUCOUS MEMBRANES. *Congestion; Inflammation.*
- VII. DIGESTIVE ORGANS. *Increased Secretions; Constipation.*
- VIII. SKIN. *Eczema; Boils; Urticaria; Fissures; Loss of Hair.*
- IX. FEMALE SEXUAL O. *Menses Delayed; Loss of Sex. Desire.*
- X. EYES. *Excoriating Secretions.*
- XI. SPINAL C. (POSTERIOR.) *Great Chilliness from Anæmia.*

Blood.—Physiological experimentation has done but little to indicate the great usefulness of this grand remedy. In the human organism, Chloride of Sodium stands in importance next to water. It is found in all the tissues of the body except the enamel of the teeth, and in about all kinds of food. By its action on the blood, it causes a dyscrasia resembling very closely scorbutic disorganization, with disposition to angry eruptions, ulcers, and inflammation. Great diminution of the red corpuscles, with anæmia, has been produced with Salt.

Lymphatics.—The lymphatic secretions are increased, and so deteriorated that disintegration of the tissues ensues. This prominent effect of this remedy is shown by the acid lachrymation, so excoriating that the eyelids and cheeks are glossy and shining, and often accompanied with eczema. The excoriating, greenish leucorrhœa, with its acridity, is a marked symptom of Salt; also emaciation, with great weariness.

NATRUM MURIATICUM.

Liver.—The action upon the liver is well marked and powerful, as shown in the rich array of hepatic symptoms. The excessive depression of spirits is, without doubt, a hepatic affection. The provers generally became constipated while taking the potencies; and our Baehr commends it in chronic cases, where the patient has a very grayish-yellow look, the liver and spleen both being enlarged. The great depression of spirits; yellow, earthy face; excessive hunger, especially for supper; longing for Salt, and unquenchable thirst,—all point to the disarrangement of the vegetative sphere of the liver.

Spleen.—This organ is greatly enlarged, and is degenerated in its functions.

Salivary and Mesenteric Glands.—The secretions of these glands are greatly increased and degenerated.

Mucous Membranes.—Moderate doses of Salt taken internally excite the mucous membranes and muscles of the primæ viæ, promote their secretions, the peristaltic motions of the intestines, and digestion. In large doses, it causes burning and pain in the fauces and stomach, thirst, dryness, and redness of the mucous lining, and desire to vomit; still larger doses cause vomiting and diarrhœa, which may terminate in fatal inflammation of the mucous membrane of the stomach and intestines.

Dr. H. V. Miller says: "When taken as food, Chloride of Sodium aids digestion, promotes nutrition, by exciting an increased secretion of the digestive fluids, especially of saliva and gastric juice; by producing various catalytic transformations; by tending to regulate the phenomena of endosmosis and exosmosis, and by holding in solution the albumen and the blood-corpuscles."

Skin.—"Dryness and cracking of the skin about the finger-nails, constituting hang-nails. (*Rhus toxicodendron*, Sulphur.) It powerfully affects the nutrition of the hair follicles, causing or curing Alopecia. The whiskers and the hair of the head and mons veneris fall out. There is itching of the vulva, with falling-out of the hair of the parts."—*H. V. Miller*.

The long-continued use of Salt produces most malignant eczema, boils, urticarious and similar eruptions.

Sexual Organs.—Salt delays the menstrual function, and in men diminishes the sexual desire.

Eyes.—This drug is rich in eye symptoms, and has proved an efficient remedy in a great variety of eye troubles. It produces

itching and burning in the eyes; with a feeling of sand in them; sharp pain over the eyes on looking down; lachrymation very acrid, excoriating, making the lids red and sore; or the discharge is thin, watery, and excoriating. Great aching in the eyes on looking intently at anything. Pustules and ulcers of the cornea.

Spine.—Natrium muriaticum acts prominently upon the spine, affecting more particularly the posterior portion, which is shown by the great preponderance of chilliness, lasting for hours, in the fevers where it is indicated.

Therapeutic Individuality.

Fever.—The vegetative nervous system is most profoundly prostrated, as shown by the emaciation, anæmia, weariness, and complete prostration of the vital forces.

Salt is indicated in inveterate, badly treated, or recent cases of intermittent fever, and it is especially useful in intermittents after the abuse of Quinine, with sallow complexion and great debility. The congestion of blood to the head, with a bursting headache, is most intense. During the hot stage, excessive thirst; but the chilly stage predominates, and hydroa are soon developed upon the lips.

"There soon appears an eruption of hydroa, or fever blisters, which cover like pearls the upper and lower lip."—*Raue*.

These hydroa upon the lips in intermittents are a positive and certain indication for Natrium muriaticum.

"Lips dry, cracked; upper lip swollen; breaks out round the mouth."—*Hg*. [Bursting headache, with melancholy.]

In spinal intermittents, the chill is more apt to come on in the forenoon, and is long lasting, followed by long-lasting dry heat and but slight perspiration. It is taught by every writer, that the chill must come on about 11 a. m., for Natrium muriaticum to be curative. This is all bosh and nonsense. I have cured many, many cases of chronic and acute intermittents where the chill has come on late in the afternoon. If the rest of the symptoms indicate this remedy, it makes no difference when the chill commences. And let me say here, that Salt will cure more cases of intermittent fever, both acute and chronic, especially the chronic, than any other known remedy. With the *thirtieth dilution*, I have cured several hundred cases with this drug alone. It is the best friend a physician has in a malarious district. And, in this connection, I can not do better than to quote, from

the *North American Journal* for 1878, Dr. C. Brooke's remarks on this remedy. Although I have never used it in his form, I place great confidence in what he says: "During my travels in Hungary, in the malarious plains of the Theiss and Maros, as well as during a prolonged residence among the Guarosi Indians, of South America, I used a cheap remedy which radically cures every case of ague in twenty-four hours by taking one or, at the utmost, two doses of it. I order a good handful of fine, clean kitchen Salt to be thoroughly roasted—if possible, in a new pan, or, at least, one thoroughly cleansed—over a slow fire, till it takes on a brown color, similar to that of lightly roasted coffee. From this roasted Salt, a grown-up man takes a full tablespoonful, rather more than less, dissolved in a glass of hot water, at once, on the morning following the paroxysm, on an empty stomach, and, in quotidian fever, a few hours after the paroxysm is over. As the remedy is only sure of its action on an empty stomach, neither food nor drink must be taken. Though great thirst follow, the patient must only sip a little water through straws; and, where the patient becomes hungry, forty-eight hours after taking the Salt, he might take a little chicken broth, or a little beef tea. Strict diet and great care not to catch cold, are of the utmost importance. I have used this remedy for the last eighteen years; and it has never failed in a single case when rightly applied. Hundreds of cases in Hungary were cured by it; and, during my voyage to Buenos Ayres, the mate of the steamer Ibis was cured by a single dose in twenty-four hours from an ague which had troubled him periodically for years, and the cure remained permanent. In the tropics of America, every European immigrant, as soon as he goes inland, is attacked by intermittent fever, which, if neglected, is too frequently fatal. Thus, four hundred English people succumbed to it in the most paludal forests of Stape, in spite of the immense doses of Quinine and brandy taken; whereas, the equally suffering German colony in the adjacent department of Haqua and Paraguay took their roasted Salt, and no death occurred among them."

"Hard chill about 11 a. m., with great thirst, which continues through all the stages; the heat is characterized by the most violent headache."—*Raue*. [Bursting headache is its great key.]

"Chill predominates; chilliness internally, as from want of natural heat, with icy coldness of the hands and feet."—*Lippe*.

"Continuous chilliness from morning till noon."—*Lippe*.

"Continuous heat in the afternoon, with violent headache and unconsciousness; they are gradually relieved during the perspiration which follows."—*Lippe*. [Hydroa upon lips.]

"Apyrexia never clear; emaciation, languor, debility; livid, sallow complexion; stitches about the liver and spleen; urine muddy, with red, sandy sediment; loss of appetite; loss of taste; aversion to bread and meat; sensation of fullness of the stomach after eating ever so little, and hydroa on the lips like beads, and ulceration of the labial commissures."—*Dr. H. C. Allen*.

"Headache commences in chill, increased in fever; partially relieved by sweat. Receding type; worse afternoon and night."—*H. C. Allen*.

"Thirst for large quantities of water before the chill; this thirst continues through the paroxysm; violent chill with headache; after the chill, the headache increases greatly; feels as if the brain were being beaten with thousands of little hammers. After the fever, sweat, and the patient wishes to lie a long time. If the disease lasts long, the corners of the mouth become sore, and finally the lips."—*G*.

Chronic cases, with great enlargement of the spleen and liver, with great hydræmia and weakness, constipation and loss of appetite.

Head.—Extreme despondency is the leading characteristic of the mind symptoms of this drug. (Malaria.)

"Melancholy, depressed, and weeping, consolation aggravates."—*Hah*.

"Sad and weeping mood, without cause."—*Schwartz*.

Great melancholy; prefers to be alone, in intermittents; very irritable; the least thing puts him out of humor.

Great loss of memory, with vertigo, and great dullness of the head.

Fullness in the head, which seems to press out the eyes; pressing pain as if the head would burst. (Malarial.)

"Dull headache almost constantly."—*Hah*.

Violent throbbing headache; seems as though the forehead would burst.

"Heavy and pressive pain in forehead above the eyes."—*Hah*.

"Dreams at night of robbers being in the room, so vividly that she will not be satisfied till the house has been searched."—*G*.

"Somnambulistic rising, and sitting about the room."—*G*.

Headache as if bursting; beating, or stitches through the neck and chest; with heat in the head, red face, nausea and vom-

iting, before, during, and after catamenia, or during the fever stage of ague, decreasing gradually after the sweat.

Awakens every morning with a violent bursting headache.

"Great inclination to weep, with great debility and thirst."—*G.*

"Stitches as with knives in the occiput."—*Hah.*

"Falling-out of the hair; great sensitiveness of scalp."—*Hah.*

"Violent itching of the head and neck."—*Hah.*

Eyes.—"Excessively sore, red, disgusting eyelids."—*Raue.*
[Lids look like raw beef.]

"Redness of the white of the eye, with lachrymation."—*Hah.*

"Inflammation of the conjunctiva, with a feeling as if the balls were too large and compressed."—*Hah.*

"The eyes give out on reading and writing, with pressing pains extending into the head."—*Hah.* [From anæmia.]

"Sensitive, dry sensation in the eyes, as after weeping a long time, while riding in a carriage."—*Schreter.* [Mucous membrane dry.]

"Burning in the eyes, with increased secretion of mucus; lids agglutinated in the morning, with great sensitiveness to sunlight."—*Schwartz.*

"Sensation as if sand were in the eye in the morning."—*Hah.*

"Pressure in the eye on looking intently at anything."—*Hah.*

"The discharge from the eye, is thin, watery, and excoriating, the photophobia marked; lids spasmodically closed; and the skin of the face about the eye, glossy and shining."—*A. and N.*

Pustules and ulcers of the cornea. (Chronic form.)

"Very useful in blepharitis; the thick, inflamed lids smart and burn, with acrid lachrymation."—*A. and N.*

Hyperæsthesia of the retina, with burning lachrymation.

"For asthenopia, particularly muscular, we possess no better remedy, especially if there is a drawing, stiff sensation in the muscles of the eyes upon moving them, with heat in the eyes."—*A. and N.*

"Ciliary neuralgia, can bear no light; coming and going with the sun; feeling as if the eyes were being pulled out."—*A. and N.*

Chlorotic females, with vertigo, sadness, congestive headache.

"Unsteadiness of vision; objects become confused on looking at them; letters run together."—*Hah.*

"Small fiery points constantly before the eyes."—*Hah.*

Ears.—"Drawing and stitching pains from the ear down to the neck or shoulder; or from the teeth up to the ear; noises in the ear; rushing and ringing; deafness."—*D.* [Chronic non-suppurating catarrh.]

Chronic catarrhal otitis, with acrid discharges.

Nose.—"Inflammation and swelling of the left half of the nose, with itching and pain when touched."—*Hah.*

"Excessive fluent coryza, with loss of smell and taste."—*Hah.*

"Stoppage of the nose; he easily takes cold in the head, is constantly obliged to wrap it up; if he allows it to be uncovered during the day, he has stoppage of the nose at night."—*Hah.*

Soreness of the nose, with great dryness of the mucous membrane.

"Epistaxis from stooping, but especially on coughing and at night, with soreness in all the limbs."—*D.*

One teaspoonful of Salt to a tumbler of water, drawn or sprayed through the nostrils, is about the best local application that can be used in chronic nasal catarrh.

Mouth.—The gums bleed easily, very sensitive to either cold or warmth or pressure; tongue appears dry.

"Ulcer on the gum; painful day and night for weeks."—*Hah.*

"Scorbutic, putrid inflammation of the gums; bloody saliva, and difficulty of talking, as if the organs of speech were weak."—*Raue.* [Tongue feels dry and stiff.]

"White-coated tongue, or map tongue."—*Raue.*

"Great complaints about the dryness of the tongue, which is not very dry."—*Lippe.* [This is very characteristic.]

"Blisters on tongue, with burning pain when eating."—*Hah.*

"Tongue heavy and clumsy, as if paralyzed."—*D.*

"Persistent dryness of the mouth, especially of the tongue."—*Dr. Wurstel.*

The desire to smoke is completely lost in malarial fevers.

"Great aversion to bread, of which she was very fond."—*Hg.*
Bitter or salty taste.

Bread is disgusting to the patient; loss of taste, or bitter taste.

"A marked indication for this remedy is dryness of various portions of the mucous membranes; it has dryness of the lips, mouth, tongue, posterior nares, larynx, and vagina."—*Dr. H. V. Miller.*

Throat.—Much mucus in the throat, with frequent hawking.

"Frequent hawking of salty mucus."—*Dr. Wurstel.*

"Sensation as of a plug in the throat, also when not swallowing, with rawness, and a feeling as if everything would be closed by the swelling."—*Hah.* [Globus.]

Digestive Organs.—Pressure and distention of the stomach, with great longing for salty food.

"Feeling of great hunger, as if the stomach were empty, but no appetite."—*G.* [Nausea at the sight of food.]

"She always has heartburn after eating."—*G.* [Excessive thirst; stomach burns.]

Very violent and unquenchable thirst, in malarial fevers.

"Burning and fullness in the stomach."—*Hah.*

"Much nausea, particularly in females using salty food."—*G.*

"She has heartburn after eating."—*G.* [Stomach burns.]

I find this remedy useful in both acute and chronic dyspepsia; indigestion and hepatic derangement. The bilious and dyspeptic symptoms are very marked and obstinate. Eating produces a dull aching distention about the liver and abdomen.

Chronic watery diarrhœa, with fever, dry mouth, and thirst; aggravated by moving about, with much thirst.

"Alternate constipation and diarrhœa."—*H. V. Miller.*

Alternate constipation and diarrhœa, with spasm of sphincter.

Constipation, with sensation of contraction of the anus.

"Difficult expulsion of stool, leaving a sensation of much soreness in the anus; with ripping sensation."—*Hg.*

"Ripping-up sensation in the anus after stool."—*G.*

"No desire for stool; prolonged constipation; perspiring."—*G.*

"Excoriating diarrhœa like water, only in the day-time; the throat and neck of children emaciate rapidly, particularly during summer-complaint."—*Hg.* [Much emaciation.]

Sensation of contraction of the rectum during a stool; fæces evacuated with great difficulty; stools dry and crumbling.

Alternate constipation and diarrhœa, with burning in the anus.

Of great value in obstinate constipation.

Urinary Organs.—Cutting and burning after urinating, from acid urine, copious watery urine.

Mucous discharges after urinating, causing itching, burning.

"Frequent desire to urinate, with copious flow of light, watery urine."—*Hg.*

"Polyuria; thirst for large quantities of water."—*Hg.* [Much emaciation.]

Tension and heat in renal region; urine dark, like coffee.

"Urine passed involuntarily when walking, coughing, or laughing."—*Hg.*

Has been used successfully in hæmaturia, especially from scurvy.

Sexual Organs, Male.—"Frequent pollution, followed by chilliness and lassitude; sexual desire increased."—*D.*

"Excessive irritability of the sexual instinct, but with physical weakness."—*Hg.* [Loss of hair from the pubes.]

"After sexual excesses, paralysis."—*Hg.* [Scrotum relaxed.]

"Gleet-like discharge of clear mucus, with emaciation."—*Hg.*

Sexual Organs, Female.—"Menses retarded and scanty, preceded by anxiety and disposition to faint, or nausea with sweet taste and bloody sputa, with constipation."—*D.*

Scanty and delaying menstruation is a prominent key for the use of Salt, with anæmia and great chilliness.

"This remedy is indicated in females whose menses delay and decrease more and more; and every morning they awaken with a violent headache."—*G.*

"Very sad and gloomy during the menses, with much palpitation of the heart, and morning headache."—*G.*

"At the menstrual nixus, sweet rising from the stomach, and spitting of bloody saliva, with terrible sadness."—*G.*

"Pressure and pushing toward the genital organs every morning; she has to sit down to prevent prolapsus uteri."—*G.*

"Uterine cramps, with burning and cutting in the groins."—*G.*

"Greenish leucorrhœa, particularly when walking in the morning."—*G.*

"Acrid, corroding leucorrhœa, itching of the vulva."—*Jessen.*

"Dryness of the vagina, which is painful during coition."—*G.*

"Much itching of vulva, with pimple on the mons veneris."—*G.*

"Falling-off of the hair from the mons veneris and labia."—*G.*

"Chlorosis, chronic cases; cachectic individuals, with dead, dirty skin; frequent palpitation of the heart; fluttering, oppression, and anxiety in the chest."—*G.*

Slow labors, from sad feelings and forebodings.

Respiratory Organs.—"Dry catarrh of larynx and trachea; cough dry, tickling, or with yellow or bloody sputa; voice hoarse; breathing anxious, oppressed."—*Dr. H. C. Jessen.*

"Hoarseness in morning with much mucus in throat."—*Hah.*

"Cough caused by tickling in the throat; vomiting of food, and great loss of breath day and night."—*Hah.*

"Stitches in the chest and sides; shortness of breathing."—*Hg.*

"The heart's pulsations shake the body, with morning headache, from motion."—*Hg.* [From hydræmia and scurvy.]

"Sensation of violent constriction in the heart; great oppression in breathing, with an intermittent pulse."—*Dr. W. Huber.*

"Pulse very rapid and intermittent; pulse-beat felt over the whole body."—*Hah.* [Pulsation often in epigastrium.]

Skin.—"Skin dirty, dry, withered; unhealthiness in general; all varieties of eruptions, but especially the vesicular form."—*Dr. H. C. Jessen.* [Acrid eczema.]

"Itching eruption on margin of hair and nape of neck."—*Hah.*

"Large red blotches like hives, that itch terribly."—*Hg.*

"Tetter in bends of joints; oozing of an acrid fluid."—*Hg.*

Great emaciation, with vesicular eruption; scurvy.

"After great bodily exertion, nettle-rash appears, with terrible itching."—*Hg.*

"Hang-nails; skin around the nails dry and cracked."—*Hg.*

"Painful contraction of the hamstrings."—*Hg.*

"After all kinds of cauterization with Nitrate of Silver."—*Hg.*

Great emaciation; easily fatigued; complete mental and physical prostration. The great weakness and weariness should be always kept in mind.

Aggravation.—Mornings; periodically; heat in general; after exertion, and after lying down.

Amelioration.—In open air; noon; from sitting up, and while fasting.

NUX MOSCHATA.

Nutmeg.

Habitat: Molucca Islands, etc. Trituration. Tincture of dried kernels, Class IV.

Antidotes.—Camphor, Nux vomica, Opium, Zincum, Valerian.

Through the cerebro-spinal nervous system, Nux moschata has three special centers of action:

- I. CERE BRO-SPINAL SYSTEM. *Insomnia; Hyperæsthesia; Paralysis.*
- II. OVARIO-UTERINE ORGANS. *Hysterical Condition.*
- III. DIGESTIVE ORGANS. *Great Dryness of the Mouth; Indigest'n.*

Cerebro-Spinal System.—The action of large doses (two drachms) seems to be mostly spent upon the brain and spinal cord, as shown by the drowsiness, sometimes increased to stupor and insensibility, with wild delirium. *Dr. Schmidius* relates a

case of a nobleman, aged thirty-six, in whom four Nutmegs seemed completely to overwhelm the nervous system. He remained in a state of *coma vigil* for three days, on emerging from which, his memory was entirely lost. Continued fever supervened, with insomnia and palpitation; and at length paralysis of all the limbs.

Ovario-Uterine Organs.—Through the excito-motor tract of the spine, *Nux moschata* affects the ovario-uterine organs, producing a similar state to that of hysteria.

Digestive Organs.—Paresis, and general state of indigestion.

Therapeutic Individuality.

Sleep, and Mental Symptoms.—Sleepy, drowsy state, with a tendency to faint.

"All the ailments are accompanied by sleepiness and an inclination to faint."—*Lippe*. [*Coma vigil*.]

"Sleepiness in some cases, disposition to faint in others, are remarkably characteristic of this drug."—*F*.

"Very sluggish flow of ideas."—*Hg*. [*With insomnia*.]

"Sudden change from grave to gay, from lively to serene."—*G*.

"Absence of mind, can not think; indifferent to everything."—*Helbig*.

"Intoxicated condition, with absence of mind."—*Helbig*.

"Changeable humor, one moment laughing and the next crying."—*Helbig*.

Head.—"Pressive headache in a small spot above the left frontal eminence."—*Helbig*. [*In hysteria*.]

"Head seemed bulky, and rolled around almost uncontrollably, being obliged to bring to its support one or both hands, while sitting at a table."—*Martin*.

"Pain especially in the temples; on shaking the head, there is a feeling of looseness, as if the brain beat against the skull; the head feels hot and can not be touched."—*Derle*.

"While eating, soon satisfied; headache from eating a little too much."—*Hg*.

"Spasms of the head and forehead."—*Hg*. [*Hysterical*.]

Eyes.—Excessive dryness of the eyes.

"Sensation of dryness in the eyes; can move eyelids only with difficulty."—*Hah*.

"Objects look too large; hand looked double its size."—*Martin*.

"Pupils greatly dilated and insensible."—*Bosch.*

"Blindness with fainting."—*Hg.* [Face pale, in hysterical subjects.]

Mouth.—"Awakens with a very dry mouth; tongue is so dry it sticks to the mouth."—*G.*

"Very great dryness of the mouth; the saliva seemed like cotton."—*Helbig.* [Its greatest characteristic.]

"Sensation of so great dryness in the mouth and on the tongue that it seems as though the tongue would remain hanging to the palate, without real thirst and without actual dryness of the tongue."—*Hah.*

"Taste like chalk in the morning fasting."—*Helbig.*

"Dryness of throat; it feels stiffened, without thirst."—*Helbig.*
Speech difficult from paralysis of the tongue.

"Pains in the teeth from inhaling cold air, or taking warm drinks."—*Hg.*

"Feeling as if the teeth were being grasped to be pulled out."—*Raue.*

"Seraping dryness in the throat."—*Helbig.*

"So great dryness of the throat that he could not swallow a bite of an apple."—*Heyder.* [In hysterical subjects.]

Stomach.—Increased appetite.

"Very great hunger at noon; stomach feels oppressed but wants more."—*Heyder.*

Inclination to sleep, with nausea and vomiting.

"Fullness in the stomach impeding breathing."—*Hg.* [Hysterical indigestion.]

Abdomen.—"Enormous distention of the abdomen after every meal."—*G.* [Very characteristic.]

"Nervous irritation of the intestinal tract; stomach and abdomen especially distended, all her symptoms worse after every unpleasant emotion."—*G.* [Paralysis of the tongue and speech.]

"Pressure in the liver as from something sharp, as if stones were pressing out, or would cut their way out; accompanied by diarrhœic stools."—*Helbig.* [No thirst, but dry mouth.]

"Rumbling and gurgling in the abdomen; from the movement of gas."—*Helbig.*

"Diarrhœa, with disposition to faint."—*F.*

"Diarrhœa, undigested, or like chopped eggs, with loss of appetite, and great sleepiness; in summer with children."—*Hg.*

"Chronic diarrhœa caused by pregnancy."—*G.*

"Stools soft, but voided with difficulty."—*Helbig*.

Sexual Organs, Male.—Weak erections, with voluptuous thoughts, great relaxation of the genitals; impotence.

Sexual Organs, Female.—Menses too early and too profuse; blood thick and black; tongue and mouth always very dry after sleeping.

"At every menstrual nixus, the throat, mouth, and tongue become intolerably dry, particularly when sleeping."—*G*.

"Leucorrhœa in women who always awaken with a very dry tongue."—*G*. [Indigestion and insomnia.]

"Suppression of menses from exposure to wet, with severe pains in the abdomen."—*F*.

"Menorrhagia; blood thick, dark; with such as have had catamenia very irregularly."—*Hg*.

During pregnancy has great fullness of the stomach, with difficulty in breathing, and dry tongue.

Spasmodic labor-like pains; hysterical women.

Respiratory Organs.—Hoarseness; nervous aphonia in hysterical women, with dry tongue.

"Sudden hoarseness from walking against the wind."—*Hg*.

"Cough when becoming warm in bed."—*Hg*.

Dry nervous, hysterical cough; always awakens with a dry tongue.

"Oppression of the chest, and rush of blood to the heart."—*Heyder*.

"Feeling as if the blood were rushing to the heart, thence to the head, and then all over the body."—*Dr. R. Roberts*.

Palpitation of the heart, with fainting, and sleepy feeling.

"Slow, small pulse."—*Dr. R. Roberts*. [In hysterical subjects.]

Back.—"Pain as if broken in the small of the back."—*Helbig*.

"Pain at the side of the lumbar vertebræ, as if caused by a blow of the fist."—*Helbig*.

"Great pressure in the back, from within outward, during the menses."—*G*.

"Pain in the sacrum when riding in a carriage."—*Hg*.

Limbs.—Numbness of the extremities.

"Feeling as though the bones of the leg had been smashed to pieces."—*Heyder*. [Hysterical rheumatism.]

"Tingling in the toes as if they had been frozen."—*Heyder*.

Pain in the limbs from cold, damp weather.

"Very great weakness of the knees, with sleepiness."—*Grimmer*.

Great weakness and fatigue; has to lie down from the least exertion, with sleepiness or coma vigil.

Hysterical convulsions; with a stupid, sleepy state.

"Adapted to people with a dry skin and who do not perspire easily."—*Raue*.

It is especially to be thought of in all neurotic hysterical diseases, where the patient always awakens with a feeling of a very dry mouth and tongue.

Aggravation.—In cold, wet, windy weather; open air; motion and night.

Amelioration.—From warmth; during rest; dry, settled weather, and in a room.

NUX VOMICA.

Strychnos Nux Vomica.

Habitat: East India, etc. Trituration. Tincture of the pulverized button, Class IV.

Antidotes.—Verat. vir., Camph., Bell., Coff., Op., Acon., Coec., Chloral, Wine, Tannin.

Through the cerebro-spinal nervous system, Nux vomica has fifteen special centers of action:

- I. CORD. (GRAY PORT'N.) *Tetanic Convul.; Death fr. Asphyxia.*
- II. MOTOR NERVES. *Exhaustion; Paralysis.*
- III. SENSORY NERVES. *Hyperæsthesia.*
- IV. EYES. *Pupil Contracted; Hyperæsthesia; Vision Increased.*
- V. EARS. *Hearing Augmented.*
- VI. NOSE. *Sense of Smell Increased.*
- VII. CIRCULATION. *Vaso-M. Spas.; Increased Arte. Blood-Press.*
- VIII. HEART. *Paresis of Inhibitory Nerves.*
- IX. STOMACH. *Increased Appetite; Acid Vomiting; Gastralgia.*
- X. INTESTINAL CANAL. *Constipation; Hæmorrhoids.*
- XI. BLADDER. *Paralysis of Muscular Coat; Incontinence.*
- XII. SEXUAL O., MALE. *Increased Sexual Desire; Impotence.*
- XIII. SEXUAL O., FEMALE. *Menses too Soon; Last too Long.*
- XIV. LUNGS. *Dry Cough; Flatulent Asthma.*
- XV. BLOOD. *Oxidation Arrested.*

Spinal Cord.—Nux vomica, and its Alkaloid Strychnia, acts upon the entire gray matter of the central nervous system, especially centering upon the tubular gray matter of the pons, medulla, and cervical portion, more than upon the dorsal and lumbar cord; and the characteristic tetanus is due to the specific action it has upon the axial tract. "When a lethal dose of Nux vomica, or of its Alkaloids, has been taken, characteristic symptoms follow in a few minutes. The state of the stomach as to food, the presence of tannic acid in the food, and of fat probably, also the condition of the blood-vessels, influence the rate of absorption; and symptoms may begin in a few minutes, or be

delayed an hour or even longer. When a full medicinal dose has been taken, some slight shuddering, a sense of constriction of the fauces and jaws, sudden pains like electric shocks passing through the limbs, startings of some of the voluntary muscles, dilated pupils, 'a meaningless smile,' paleness of the face, followed by flushing and increased warmth of the surface and perspiration, are symptoms which may be produced without further development of a toxic action. If the dose be large enough to cause death, the above-described symptoms are quickly followed by tetanic convulsions, in which nearly all the voluntary muscles are engaged. When the paroxysm occurs, a shudder passes through the whole frame; the head and extremities jerk and twitch, and then suddenly a general tonic convulsion takes place, —the limbs are extended, the hands clenched, the toes and feet incurvated, the head bent backward, the body arched and rigid, the abdominal muscles hard and tense, the respiratory muscles fixed so that the body, curved in the form of a bow, rests on the occiput and heels. The countenance assumes a ghastly grin, —the *risus sardonicus*; the arrest of the respiratory movements suspends oxidation of the blood, and the skin becomes cyanosed; strong erections of the penis occur, and frequently involuntary evacuations of semen, urine, and feces, take place. Rarely does death ensue in the first paroxysm; the spasm relaxes, and nothing remains of the attack but the muscular soreness and fatigue, and the sense of impending dissolution. Absolute quiet [and darkness] retards the paroxysms. At first, the senses are preternaturally acute, and, as the reflex function is abnormally excitable, the slightest peripheral irritation suffices to bring on the spasms. Generally, patients experience comfort when the limbs are strongly held, or even rubbed, during the paroxysms; but, in the interval, absolute quiet is most grateful. The mind remains unaffected until the close, or, at least, until carbonic-acid poisoning sets in. The paroxysms rapidly succeed each other, and increase in duration and severity, death occurring usually by fixation of the muscles of respiration, or by exhaustion, and within two hours, usually, from the beginning of symptoms. . . . The effects of Strychnia are exerted on the spinal cord, on the seat of the motor functions. It does not affect the functions of the motor nerves directly,—the irritability of the motor nerves is not destroyed by Strychnia, it is exhausted by over-stimulation. The sensory nerves are unaffected, or their irritability is increased. The reflex functions of the spinal cord are exalted. The afferent nerves, preserving their irritability,

communicate impressions to the reflex centers, motor impulses are quickly originated, and the muscles, through the motor nerves, are fixed in a state of tonic contraction. The overstimulation of the cord and the motor nerves exhausts the irritability of the latter. The muscles preserve their contractility."—*Bartholow*.

"The tetanic convulsions which characterize poisoning by Strychnine indicate, *a priori*, a change in the nerve centers, especially in the spinal marrow, wrought by the poison. The numerous researches which have been made upon the action of Strychnine in animals all agree on this point, that it is primarily the gray substance of the spinal marrow upon which Strychnine acts poisonously."—*Ziemssen*.

The following excellent resume of the effects of *Strychnia*, I take from the prize essay of E. C. Spitzka, M. D., that drew the \$250 prize offered by Dr. Wm. A. Hammond, of the American Neurological Association:

"*Strychnia* is a poison to all forms of animal life.

"*Strychnia* exercises its influence upon animals by affecting the central nervous apparatus and the vaso-motor system; but it can act fatally on animal forms possessing neither of these systems, and must, therefore, be considered as acting lethally on all complex tissues.

"*Strychnia* acts upon the gray matter, on all gray matter alike, and affects both its sensory and motor elements.

"The white nervous matter and the peripheral nerves, play but the passive role of conductors.

"*Strychnia* does not affect the nerves or muscles locally.

"It affects the peripheral end organs of special sense locally.

"*Strychnia* produces tonic spasms in all vertebrates.

"In higher vertebrates, clonic spasms are added.

"This difference between higher and lower vertebrates in this respect, is probably due to the difference of the nervous system.

"The clonic spasms are more intense, *cæteris paribus*, in smaller than in larger animals.

"In higher animals, the spasms are due to the action of the Alkaloid on the axial parts of the nervous system, the pons, medulla, and cord.

"The maximum of the tetanizing influence is intra-cranial, and thence it gradually diminishes toward the posterior extremity of the cord.

"*Strychnia* kills the lower vertebrates directly by nervous exhaustion; the higher, as a rule, by asphyxia and venous conges-

tion of the nervous system, in addition. In very large doses, it is directly lethal to the nervous system. . . .

"In large doses, cortical (epileptiform) spasms are produced.

"It produces no visible changes either in the nerve-fibers or nerve cells, whether given for a short or long period.

"Lesions are found after death from Strychnia, which are not due to its direct local effect, but to secondary results.

"Chronic permanent lesions are produced in the course of chronic Strychnia-tetanus, which are also referable to secondary influences.

"Strychnia increases the reflex excitability; but not all Strychnia spasms are due to this factor; some depend upon direct irritation of the motor cells.

"Strychnia is present in every organ of the body, after administration; it is found in all parts of the brain, cord, and nerves, but in greater quantities in the gray than in white nerve tissues.

"There is no true antidote to Strychnia, although various agents which diminish reflex excitability, and paralyze the muscles, or alter the tonus of nerve-fibers, may enable an animal to survive the effects of otherwise fatal doses. But these means fail with larger doses." [Full doses of *Veratrum viride* will antidote Strychnia-poisoning.]

Motor Nerves.—"That the motor centers are acted upon by Strychnia, is proven by the ingenious experiment of Van Deen. That investigator removed the viscera, vessels, etc., from a frog, so as to leave nothing below the second cervical vertebra but the bones, nerves, and muscles; then, opening the spinal cord in the region of the third vertebra, he cut entirely through the anterior columns of the cord, and finally divided all the tissues, so that the anterior portion of the frog was connected with the posterior solely by the posterior columns of the cord. When one or two drops of a solution of Strychnia were placed in the mouth of the prepared batrachian, tetanus, confined to the anterior segment of the body, was developed; and it was also found, that, while irritation of the posterior feet caused in them only ordinary reflex movements, in the front legs tetanic spasms were simultaneously induced. It appears to be proven by the evidence adduced in this and other experiments, that Strychnia is a powerful stimulant to the motor cells of the spinal cord.

"The action of Strychnia upon the motor nerves has been a subject of considerable controversy. After death from Strychnia, the functions of the motor nerves are always found to be more or

less impaired, so that galvanization of the nerve-trunk either only produces very feeble contractions in the tributary, or else none at all. Of this fact, there would seem to be no doubt; it has been attested on the evidence of personal experiment by many observers, among whom are *Matteucci*, *Moreau*, *Wittich*, and *Vulpian*. Now, it is evident that this absence of response may be due to loss of functional power in either muscle or nerve. Sometimes the muscle may be at fault; but, as *Matteucci* insists, and as has been noted by many observers, not rarely—indeed most generally—in the frog, galvanization of the nerve fails to elicit response, although the muscle preserves its irritability.

"It having been proven that the functional power of the motor nerves is destroyed in *Strychnia*-poisoning, the question arises, Is this destruction a direct action of the poison? or, is it simply the exhaustion of over-use, due to the intense activity of the nerve during the stage of spasm? It can not be gainsaid that the power of the nerve is lessened by the strain upon it during the convulsions; and *Kolliker* concludes that this is the sole cause of the nerve-paralysis; because, when he cut the sciatic nerve of a frog and exhibited *Strychnia*, the divided nerve would respond to galvanic stimuli after all functional power had been lost in the nerve whose connection with the centers was intact. Granting the experimental fact, it would only prove that contact of the poison was not the sole cause of the motor-nerve paralysis; as it is plain, although both nerves suffered this contact, yet the uninjured suffered it plus exhaustion from excessive use. The conclusion is, moreover, opposed by the fact attested by *Vulpian* and other observers, that an overdose of *Strychnia* kills the frog without the induction of spasms by general paralysis, with total loss of power in nerve-trunks, evidently a direct action of the poison.

"*MM.* *Martin-Magron* and *Buisson* have investigated very elaborately this action of *Strychnia* upon the nerves; and the correctness of their experiments and results seems to me scarcely questionable. They found, that, if the sciatic nerve of a frog was divided, and a sufficiently large dose of the *Strychnia* administered, the divided sciatic lost its irritability, although, unless the dose was very large, not so soon as did its fellow. *Vulpian* has confirmed this; and the opposite result of *Kolliker*, no doubt, depended upon his not using sufficiently large doses of the Alkaloid, or upon his testing the nerve too early. *Martin-Magron* and *Buisson* also tied all the tissues of a frog's leg except the nerve, and then, on exhibiting *Strychnia*, found that convulsions ceased in the poisoned, much sooner than in the non-poisoned, leg, and

that at a certain time irritation of the poisoned foot would induce tetanic spasms *only* in the *non-poisoned member*,—proof that the afferent nerve-fibers of the poisoned leg were not affected, and that the motor nerves were paralyzed wherever the poison had access to them; and that to this, not to spinal exhaustion, was due the general paralysis.

"M. Vulpian affirms that he has repeated this experiment many times, and always obtained the same result as Martin-Magron and Buisson. It would seem to prove that Strychnia in very large doses paralyzes the efferent, but not the afferent nerves; and that the collapse of Strychnia-poisoning in the frog is largely due to the affection of the motor trunks, and not to exhaustion of the spinal cord. Again, Vulpian found that the nerve protected by tying its vessels preserved its irritability after the non-protected nerve had lost its functional power. The evidence appears to be as complete as it can, and to show, that, in Strychnia-poisoning, at least in the frog, the motor nerves lose their functional power, partly through exhaustion, and partly through a direct action of the poison upon them. As Fraser has discovered for Atropia, Vulpian has found for Strychnia; viz., after a time,—say from some hours to two days,—if the dose has been of the right size, the Strychnia-paralysis passes off, the motor nerves are found to have regained their power, and the convulsions re-appear, and continue hours or days."—*H. C. Wood*.

"Strychnia differs from many other poisons, in this,—that it is *only in increasing the reflex faculty of the spinal cord* that it causes convulsions. This vital property of the cord reaches such a very high degree that any external or internal excitation brings on a reflex tetanic convulsion, the violence of which, according to a well-known law, is in proportion to the degree of the reflex faculty. So long as the spinal cord does not receive some kind of excitation, however powerfully poisoned by Strychnia it may be, there is no convulsion.

"In other words, the cord may be ever so much congested, but the abnormal reflex irritability is not shown, unless it is excited by the touch, or some other form of irritation.

"There are many other drugs which cause spinal congestion, but none which cause this peculiar abnormal condition in the tissue of the cord. If Strychnia causes this twofold condition of the spinal cord by its primary action, it causes, as the result of the poisoning in animals shows, a secondary action just the opposite; namely, *anaemia of the cord, with paralysis from exhaustion, of the faculty of the reflex motor nerve cells*. Not only this, but it

causes paresis of the trophic (nutrient) nerve cells, and, as Hanfield Jones believes, may cause paresis of the cerebral nerve centers."—*Hale*.

Eyes.—Nux vomica produces nervous irritability of the eye, with contraction of the pupil. Notwithstanding dilatation of the pupil is produced by Strychnia from asphyxia, the legitimate effect of Strychnia is contraction of the pupil and not dilatation.

In hyperæsthesia and amaurosis of the retina, aggravated mornings, Nux vomica is in place.

Ears.—The sense of hearing is augmented by this drug, especially with the Alkaloid.

Nose.—It has been found, that, brushing a solution of Strychnia on the regio olfactoria of healthy as well as of anæmic individuals, the acuteness of the sense of smell was increased.

Circulation.—"Strychnia has a very decided influence upon the circulation. Drs. Richter, Mayer, Schlesinger, and Klapp have all found that a decided rise of arterial pressure comes on before or about the time of the first convulsion. The rise is not due to the convulsion or to the interruption of the circulation, as it occurs in Curarized animals in which artificial respiration is maintained. Both Richter and Mayer affirm that the small arteries can be seen to contract under the influence of Strychnia, and conclude that the rise of the pressure is due to vaso-motor spasm. Mayer also found, that, after paralysis of the dominant vaso-motor centers by section of the cord, Strychnia produced no rise of the arterial pressure, or, if any was caused, it was very slight. A different experimental result has, however, been reached by Schlesinger. This investigator found that the rise after the division of the cord, both absolutely and relatively, exceeds that produced in the normal animal. It is worthy of note, that, in three of the fifty experiments made by Schlesinger upon rabbits, the Strychnia failed to elevate the pressure after section upon the cord. Schlesinger explains the apparently opposite results reached by himself and by Mayer by the fact that the latter investigator employed rabbits, and farther states, that, in six experiments made by himself on dogs, he four times obtained results similar to those of Mayer. Klapp experimented upon the cat, dividing not only the spinal cord, but also all the cardiac nerves of the neck. Under these circumstances, no rise of pressure followed the injection of the Strychnia. A very plausible explanation of the pecu-

liar results obtained by Schlesinger is that given by Klapp; namely, that he failed to make a perfect section of the cord, Klapp having found that a few fibers are sufficient to carry up the impulse. Further experiments upon rabbits are necessary before my final judgment can be passed upon the work of Schlesinger, but the drift of the whole evidence is to show that much of the rise of the arterial pressure produced by Strychnia upon the normal animal is due to vaso-motor spasm. It is well known, that, after division of the cord, stimulation of a sensitive nerve fails to cause vaso-motor spasm and rise of arterial pressure. Schlesinger found that in the Strychnized animal the contrary to this is true. This curious asserted fact receives some support from the experiment of Klapp. In the majority of instances, he failed to get a decided rise; but in a few cases he did. The explanation of Schlesinger is that in the normal animal the peripheral impulse can only reach the vaso-motor nerves by first going to the dominant center, but that Strychnia so alters the functional condition of the spinal cord as to allow the peripheral impulse to play all through the local vaso-motor nerves, which undoubtedly are in the cord, and to cause a general vaso-motor spasm by producing innumerable local spasms. This theory may be true, but must yet be considered *sub judice*.

"It has been shown by the experiments of Klapp that the primary stimulation of the vaso-motor centers by Strychnia is followed by fall of arterial pressure and vaso-motor palsy; also that very large doses produce an immediate depression of the vaso-motor centers and fall of the arterial pressure.

"There is some apparent conflict of testimony in regard to the influence of Strychnia upon the inhibitory cardiac nervous system. Dr. Carl Heinemann, who has investigated at some length the influence of the drug upon the heart of the frog, finds that large doses cause diminished frequency of the cardiac movements, with diastolic pauses. According to his experiments, these phenomena are not due to stimulation of the inhibitory nerves, since they occur after section of the vagi; nor are the peripheral vagi paralyzed, since galvanization of one of these nerves causes immediate diastolic cardiac arrest. Mayer has also found that the peripheral vagus is not paralyzed, since he could suspend the action of the heart in the poisoned animal by galvanization of the par vagum. Klapp has also reached results confirmatory of those of Heinemann. On the other hand, Martin-Magron and Buisson affirm, that, in all of very many experiments, after a greater or less length of time, the pneumogastrics lost their power

of transmitting an impulse. The reconciliation of these results is very difficult; possibly, Martin-Magron and Buisson employed a Strychnia containing very largely of Brucia; possibly, enormous doses of Strychnia do affect the peripheral vagi, but not until very late in the poisoning; although, when small doses are employed, even death may occur without very decided paralysis of these nerves. That the different results are not due to the use of different animals is evident; since, although Mayer used hounds, both Heinemann and Klapp employed the same animals as did Martin-Magron and Buisson, viz., frogs. Dr. I. Steiner has found the action of Strychnia much more marked when it is placed upon the posterior than on the anterior face of the frog's heart; also, that the Strychnia acted much more promptly and severely upon the separated sinus venosus than upon the ventricles or auricles, and hence concludes that the Strychnia acts especially upon the ganglia of the sinus. His experiments and conclusions have been confirmed by Klapp, and are probably correct."—*Dr. H. C. Wood.*

Dr. Hughes says: "The excitation caused by the drug affects the vascular nerves and arteries, causing the febrile phenomena of chill, heat, and sweat. Modern experimentation has confirmed this observation, showing that Strychnia contracts the arterioles and greatly increases the blood-pressure; and does this by direct stimulation of the vaso-motor center at the base of the brain."

Digestive Organs.—Nux vomica acts as most bitter tonics, augmenting and vitiating the secretions of the mouth, stomach, liver, and pancreas, deranging digestion, and producing gastralgia and acid vomiting; and inflammation of the mucous membrane of the stomach is often produced by Strychnine-poisoning. In the abdomen, we have much flatulence, with all varieties of colicky pains. "As regards the stool, Hahnemann remarks that copious diarrhœic stools are never produced by Nux vomica; but what is called diarrhœa from Nux vomica consists in rather small evacuations mixed with mucus, attended by tenesmus and straining. This tenesmus is attended by a smarting burning in the rectum. The most frequent action of Nux vomica is the production of constipation, as if from constriction or inactivity of the intestines; or, rather, it produces an ineffectual urging to stool; and, whenever the stool takes place, it seems to be incomplete and unsatisfactory, and as if a part of the feces failed to be expelled; or the stool is very hard, and its evacuation requires great effort, and

leaves a stitching and aching pain in the rectum. But, after the evacuation, there is no desire to sit and continue to strain, as with Mercurius. Often the stool is soft, mixed with mucus and streaked with blood; or there is clear blood along with the fæces."—*D.*

The power of producing and curing hæmorrhoids is one of the most prominent features in the action of *Nux vomica*.

Sexual Organs, Male.—*Nux* produces energetic venereal desires, with troublesome and powerful erections. Sexual impotence from spinal exhaustion is a marked effect of *Nux vomica* and its Alkaloid; and, among all our remedies, no better one than this can be found for spermatorrhœa, and the long train of symptoms found in impotency, accompanied with spinal exhaustion.

Sexual Organs, Female.—The menses occur too soon, and continue much longer than they should; accompanied by nausea, chills, faintness, and spasmodic pains in the abdomen.

Kidneys.—The action of this drug upon the urinary organs often is the means of relieving much suffering, in spasmodic and paralytic affections of the ureters, bladder, and urethra. It produces paralysis of the muscular coat of the bladder, with retention or incontinence of urine.

Respiratory Organs.—In the nose, it produces obstructive catarrh. In the lungs, the mucous membranes are dry, with dry, hard cough, and great constriction of the chest. The asthma of *Nux vomica* might be termed *dyspeptic asthma*, for the gastric symptoms always predominate; the dry, spasmodic asthma depends upon the reflex excitability of the vagi.

Pathology.—Besides the strongly marked cadaveric rigidity, "the lungs are hyperæmic, usually with small infarctions; but these are sometimes absent. Hemorrhagic erosions are occasionally found in the stomach and intestines. In a few cases, fluid exudation has been found in the pericardial and pleural sacs.

"Sometimes the urinary bladder is strongly contracted. In the abdominal glands, we find the usual venous engorgement consequent on death from acute asphyxia. The condition of the brain and spinal marrow is by no means characteristic. In many of the older cases reported, marked hyperæmia of the brain was stated to have been found; but, in recently reported cases, very little stress is laid on this hyperæmia. Exudations and actual hemorrhages are found in the lateral ventricles; but these are not necessarily connected with the action of the *Strychnia*. Nothing

characteristic has been found in the spinal marrow. If crushed Nux vomica has been taken, we find the remains of it in the stomach and intestines. Notwithstanding the occurrence of vomiting, Nux vomica adheres strongly to the mucous membrane; this is partly owing to its pointed fragments, and partly to the fine hairs covering its surface, which are characteristic of Nux vomica."—*Ziemssen*.

Therapeutic Individuality.

General Indications.—Nux vomica is especially adapted to people with choleric, sanguine, malicious, irritable temperament, and to those who make great mental exertions.

Diseases caused by high living, stimulating drinks, highly seasoned food, or a too sedentary life.

The pains caused by the Nux vomica are tingling, hard, aching, sticking pains, aggravated by motion, and especially by contact.

"After aromatics in the food, or as a medicine, particularly ginger, pepper, etc., and after almost any kind of so-called hot medicine."—*Goullon*.

Head.—Quarrelsome, even to violence, is a marked key to the use of Nux vomica.

"Ill-humor, much inclined to quarrelsome vexation."—*Hah*.

"Very hypochondriac and affected by the slightest thing after eating."—*Hah*.

"He can not tolerate a noise, talking, strong odors, bright light; music and singing affect him."—*Hah*.

"Over-sensitiveness; every harmless word offends, every little noise frightens; anxious and beside themselves; they can not bear the least, even suitable, medicine."—*Hg*.

Hypochondriac, with an irritable temper; arising from liver or gastric troubles, especially in drunkards.

"Hypochondriasis in studious men; sitting too much at home; with abdominal complaints and constipation."—*Hg*.

Loses the connection of ideas, and fears she will lose her reason.

"Very particular, careful, zealous persons, inclined to get angry and excited, or of a spiteful, malicious disposition."—*Hg*.

"Can not keep from falling asleep in the evening, while sitting, hours before bed-time."—*Hg*.

"Complaints from the open air; longing to sit or lie down; ill-humor, resisting obstinately the wishes of others."—*Hg*.

"Sensation as if his head were immensely larger than his body, as large as a church."—*F.*

"The sleep of *Nux vomica* is peculiar. Instead of being wide awake in the evening, as under *Pulsatilla*, falls asleep in his chair, is very heavy, and, on going to bed, sleeps immediately. On the other hand, an hour or two before day-break awakens and can not sleep again."—*D.*

Headache, feels as if it would split open, with acid vomiting from indigestion, or the effects of alcoholic stimulants.

"Sick-headache, brought on by wine, coffee, close mental application, sedentary habits; commences in the morning, increases through the day, growing milder in the evening; with dimness of vision; *sour*, bitter vomiting; constipation; worse from noise, light, in open air, or after eating."—*G.*

"Headache in the forehead, as if the eyes would be pressed out, or in the occiput."—*Rauc.* [Old drunkards.]

Severe vertigo, from excessive use of coffee or liquor, with great irritability.

"It is more particularly suitable when the patient is worse in the morning than at any other time of day, when he awakes about 3 a. m., and remains wakeful, with a multitude of ideas crowding in his mind, and when, just at daybreak, he falls involuntarily asleep, filled with busy dreams, from which he awakes tired and indisposed to arise."—*D.* [From indigestion.]

"Intoxicated, dizzy heaviness of head, in the morning."—*Hah.*

Much intoxication and confusion of the mind.

"Headache in the morning, in bed before opening the eyes; composed of heaviness and pressure, as if he had not slept all night."—*Hah.*

"Pressive headache in the occiput in the morning immediately after rising from bed."—*Hah.*

Headache as if the brain would be pressed asunder from mental exertion, chagrin, or anger; from abuse of coffee or spirits.

All these symptoms show that diseases of the mind and head are merely symptomatic, caused by some gastric or hepatic disorder.

Eyes.—In nervous diseases of the eye, with much irritability and morning aggravation, *Nux vomica* is of great utility.

"In choroiditis disseminata, it is a prominent remedy, especially in persons addicted to the use of stimulants."—*A. and N.*

"Of late years, *Strychnia* has been employed extensively by the old school in treatment of atrophy of the optic nerve and various

forms of amblyopia. It is used chiefly by hypodermic injection, and with marked success. We also often find *Nux vomica* useful in atrophy of the optic nerve, checking the progress of the disease, restoring vision in many cases to a limited extent; but it is impossible to restore the sight wholly if genuine atrophy has commenced."—*A. and N.*

"In amblyopia potatorum, or impairment of vision due to the use of intoxicating drinks, or dissipation in general, no remedy will more frequently restore to power the benumbed nerve."—*A. and N.*

"In various forms of trouble, I have given *Nux vomica* for a blurring of sight by overheating, and nearly every time with benefit."—*Woodyatt.*

"Hyperæsthesia of the retina, with frequent pains in the top of the head, sleepless nights, awakening cross in the morning, relieved promptly."—*A. and N.*

"Intolerance of the daylight in the morning, with obscuration of vision; photophobia in the morning being strongly marked."—*A. and N.*

Ciliary blepharitis, dry, smarting lids, especially mornings.

"Frequently indicated in ulcers and pustules of the cornea, smarting and burning, with excessive morning photophobia."—*A. and N.*

"A smarting, dry sensation in inner canthi in morning."—*Hah.*

"Clinical experience has led me to regard morning photophobia as especially indicating *Nux vomica*; no suffering afternoons."—*D.*

Nose.—Dry coryza, "stuffy cold," with dry cough. The dry catarrh is frequently followed by profuse mucous discharges.

"Real coryza, with scraping in the throat, crawling in the nose, with much sneezing."—*Hah.* [Sub-acute catarrh.]

Snuffles, especially in children, the nose always filled with mucus.

"Nose-bleed in morning from suppressed hæmorrhoids."—*Hg.*

Acute and sub-acute catarrh, with dry, stuffy feeling of the nose mornings; fluent mornings; itching of the Eustachian tube compels frequent swallowing, which keeps him awake nights.

Mouth.—"There is one state of the tongue characteristic of *Nux vomica*; the first half of the tongue is clean, or comparatively clean; sometimes it is red and shining, but the posterior half is coated with a deep fur. In dyspepsia where this is present,

I have found *Nux vomica* of great and permanent service."—*W. Bayes, M. D.* [With sour, bitter taste.]

"Bad taste in the mouth in the morning, though food and drink have a natural taste."—*Hah.*

Sour taste in the mouth mornings is characteristic.

"Putrid taste low down in the fauces, when hawking up mucus."—*G.*

"Food and drink have a putrid smell to her; can not bear the odor of tobacco."—*G.* [Offensive odor from the mouth.]

"Taste is sour, musty, bitter, with a sensation of hunger; but the appetite is immediately satisfied, after eating ever so little."—*Hempel.*

"Mouth dry, sore, full of fetid ulcers, with bloody saliva."—*G.*

No appetite, with complete loss of energy, in dyspepsia.

Drawing, tearing toothache, worse from cold and mental exertion.

Mouth dry without thirst, or filled with sour mucus, mornings.

Offensive odor from the mouth from indigestion.

"Raw, scraped feeling in throat, as after heartburn."—*Hah.*

"Fauces sore as if raw, felt on swallowing, and on contact with cool air, accompanied with a sensation as if there were a plug in the throat, probably gastric."—*D.*

Frequent sour or bitter eructations from the stomach.

Stomach.—"Nux vomica is suitable to all cases of depression consequent upon over-stimulation; and, in the treatment of dyspepsia, *Nux vomica* (*Strychnia*) has proved an admirable remedy, especially where a defect of the nerve tone has induced derangements of the digestive functions."—*Bayes.*

"In cases most suited to *Nux vomica*, I have found the prominent symptoms to be the condition of the tongue indicated above, an evidence of an atonic condition of the ganglionic system of nerves. The pains which indicate *Nux vomica* are not those caused by inflammation, but by spasm."—*Bayes.*

Very dyspeptic; tongue red and sore, coated yellow at the base, with excessive acid risings from the stomach, or vomiting of sour mucus in the morning.

"Very dyspeptic; much excited by coffee, spirituous liquors, or highly seasoned food."—*G.* [Or from mental labor.]

"Nausea and sour, bitter vomiting; or rising of sour and bitter fluid from the stomach."—*Raue.*

"Nausea and vomiting every morning, with constipation of large, difficult stools, with great depression of spirits."—*G.*

"Sudden feeling of repletion after swallowing a small quantity of food."—*G.* [In chronic indigestion.]

"Flatulent distention after eating or drinking."—*Hg.*

"The city man of business is the typical patient for *Nux vomica*, his troubles are all nervous and dyspeptic; and their causes are worry, much mental with too little bodily exertion."—*Hughes.*

"*Nux vomica* is an excellent remedy in dyspepsia. The feeling of weight on the stomach after eating, flatulence, and pyrosis especially call for *Nux vomica*. But, above all, we recommend the alternation of *Graphites* with *Nux.*"—*Jousset.*

"Gastralgia, when there is great flatulency, the pains have the character of cramps, radiating either into the hypochondria, or beneath the sternum and toward the neck, following the course of the phrenic nerve."—*Jousset.*

"In chronic gastritis, *Nux vomica* is a very reliable remedy, with an habitual pain in the pit of the stomach, regurgitations of bitter and acid liquids; vomiting of the same nature; also contraction of the pylorus, with dilation of the stomach."—*Jousset.*

"Cardialgia, with clawing constricting in the pit of the stomach, extending to the small of the back or anus, brought on by coffee, liquor, nostrums, sedentary habits, or mental exertions."—*Raue.* [Use *Strychnia.*]

"Pressure over the solar plexus brings on spasms."—*Raue.*

"The region of the stomach is very sensitive to external pressure, and so, indeed, is the abdomen generally, can not bear tight clothing; there is a pressing pain as from a load in the stomach, even if the food or drink taken is small."—*D.*

"After a meal, he is qualmish, anxious, nauseated, debilitated and sick, as after a violent cathartic."—*Hah.*

"Pressive pain in the epigastric region, as from overloading the stomach, immediately after eating."—*Hah.*

"Want of appetite, with nausea; aversion to the usual food and drink, and the customary tobacco and coffee."—*Hah.*

"Frequent hiccough without cause."—*Hah.*

"Excessive thirst for beer; followed by nausea."—*Hah.*

Let no man forget the use of *Strychnia*, 3d trituration, in dyspepsia, where there is an atonic state of the digestive organs, with its manifold symptoms of a nervous nature; it greatly excels *Nux vomica* for chronic dyspepsia.

Abdomen and Stool.—Abdomen much distended.

"Cramp-like pain in the left side of the abdomen, associated with qualmishness, that is felt especially in the stomach."—*Hah.*

Much flatulent distention of abdomen after eating; indigestion.

"Flatulent distention, immediately after eating, and a colic, as if diarrhœa, from taking cold, would come on."—*G.*

Much colic and acid vomiting in babies; from indigestion.

"Sensation of weakness in the abdominal ring, as if a hernia would occur."—*G.* [Or as if a hernia would become incarcerated.]

"Forcing-down toward the genitals, in lower abdomen."—*Hah.*

"Colic with pressure upward toward the thorax."—*Raue.*

Hepatic colic, with sudden severe pain in the right side; spasms of the abdominal muscles, with stitching pains in the liver. To relieve the severe pain in the passage of a gall-stone, Nux has often been of great value.

Jaundice from gall-stones, with aversion to food, and faintness.

Flatulent colic from indigestion, the whole child smells sour.

"Hæmorrhoidal colic, with hard, tearing, pressing pains in the small of the back and lower bowels, frequent and ineffectual urging to stool; vertigo, headache."—*Hempel.*

"Flatulent colic as if the bowels, bladder, and rectum were pressed upon with a sharp instrument."—*Hempel.*

In spasmodic recent hernia, Strychnia is the most useful.

"Sensation as if a hernia would form."—*F.* [From flatulence.]

"Constipation, with ineffectual and frequent urging to stool, with a sensation as if the anus was contracted."—*G.*

The great key for Nux vomica is *constipation*, with *frequent but ineffectual* desire for stool.

"Habitual constipation of large and difficult stools, with frequent urging to go to stool; frequent calls to go to stool, but not able to defecate."—*G.*

"Nux vomica does not diminish the action of the intestine; it rather increases it, but at the same time renders it *inharmonious* and *spasmodic*; a hindrance, therefore, and not a help, to evacuation. This is the reason why the constipation characteristic of Nux vomica is accompanied by frequent and ineffectual desire for stool."—*D.*

"Dysentery, stools thin, brownish, bloody mucous, after debauchery or drastic medicines."—*J. B. Bell.*

"Before stool, cutting about the umbilicus; backache as if broken; constant urging."—*J. B. Bell.* [Morning diarrhœa.]

"Cessation of the pains and tenesmus after stool."—*J. B. Bell.*

"Piles, with shooting shocks in the loins; contractive pains which hinder from rising up, and ineffectual urging to stool."—*G.* [Alternate constipation and diarrhœa.]

Hæmorrhoids with frequent hemorrhages and constipation.

"In hæmorrhoids, Nux vomica and Sulphur dominate all other remedies; corresponding to the local affection, the congestion, the neuralgia, the dyspepsia, and the hemorrhages. Nux is especially indicated with ineffectual desire for stool, tenesmus; anal constriction; diarrhœa or constipation, with clear blood or mucus in the stools; with hemorrhage, epistaxis, metrorrhagia, neuralgia, and dyspepsia; 12th dilution."—*Jousset*.

"Tearing, sticking, and constricting pain, as from aggravated blind piles in the rectum and anus, after a meal or mental exertion; after a stool, it seemed as if some remained behind and could not be evacuated, with a sensation of distressing constriction in the rectum."—*Hah*.

Urinary Organs.—Paralytic incontinence of urine from irritation of the lower portion of the spine.

"Frequent desire to urinate; constantly called out that he would feel better if he could pass water; urine turbid and muddy."—*Schmidt*.

"Frequent urination; passes little and often, with much burning."—*G*. [Paralysis of the muscular wall of the bladder.]

"Nocturnal enuresis; urinates very often; bloody urine."—*G*.

"Violent straining; the efforts to urinate were constant and most painful, without ability to pass a single drop."—*Cockburn*.

"Burning and tearing pain in the neck of the bladder while urinating."—*Hah*. [From chronic prostatitis.]

"During micturition, very tenacious mucus passes from the bladder with urine, without pain."—*Hah*. [Chronic gonorrhœa.]

"Irritable bladder of gout or alcoholism; and to relieve pain and spasm in the passage of urinary calculi."—*Hughes*.

Sexual Organs, Male.—This is probably the most valuable remedy we have for spermatorrhœa from plethora, with sexual dreams and nocturnal emissions, followed by excessive irritability; despondency, and prostration.

"Nocturnal emissions from plethora of the sexual organs; or emissions without erections; followed by debility and great relaxation of the parts."—*Hempel*. [And complete impotence.]

The slightest irritation, especially if a woman is touched, produces lascivious thoughts, and frequently emissions, followed by nervous exhaustion. (Use the 30th up to the 1000th for spermatorrhœa.) In sexual impotence with great spinal exhaustion, Strychnia will be found of great value. Use the high attenuations. I now use the high attenuations in spermatorrhœa, with altogether better results than I ever had with the low dilutions.

Gonorrhœa; thin discharge, with burning and urging to urinate, and frequent urging to stool; chronic form with prostatitis.

Sexual Organs, Female.—Menstruation too early, too profuse, with weak, faint spells, or very irregular; in irritable women.

"Menses occur too soon and last too long."—*D.*

Great excitement of the sexual organs of women, with sexual dreams and orgasm in irritable, headstrong women.

"Menses irregular and never at the right time."—*G.*

"Every pain during labor produces a desire to defecate, or to urinate, particularly the former."—*G.*

"Pressure toward the genital organs early in the morning, in bed or during a walk, with spasms of the abdomen."—*G.*

"Fetid leucorrhœa, tinging the linen yellow, with pain in the uterus as if bruised, and much pain in lumbar region."—*G.*

Violent and protracted after-pains, in irritable women.

"Morning sickness during pregnancy; mornings, with constipation and excessive irritability."—*Hg.* [Nux vomica and Pulsatilla are the best known remedies for morning sickness.]

Lochia scanty and offensive, with bearing-down pains.

Respiratory Organs.—The cough of Nux vomica is of recent origin, of a dry, scraping character, and not founded on an organic base, but of a simple catarrhal nature, or reflex from indigestion, or spinal, producing soreness of the stomach.

Dry coryza, worse at night; nose completely filled up.

Dry, racking cough, where the epigastrium becomes very sore, is a prominent characteristic of Nux vomica.

"Dry, hard cough, with great soreness of the abdomen."—*G.*

"Cough short, dry, and fatiguing; appears at night, on lying down, prevents going to sleep; lasts often from midnight to day-break; accompanied by severe headache, and soreness in the epigastric zone, seems to come from the larynx."—*D.*

The asthma of Nux vomica might well be termed *dyspeptic asthma*; for the gastric symptoms always predominate, and the asthma is of a dry, spasmodic nature, depending upon reflex excitability of the vagi.

"Nux vomica is most appropriate when there is coryza with sneezing, when the attacks come on after eating, or in the morning, and when the patient is subject to hæmorrhoids."—*Jousset.*

In cardiac neurosis dependent upon paresis of the motor nerves, there is always a constitutional debility, with feeble circulation and cardiac action. (Use Strychnia.)

Sudden palpitation of the heart, from indigestion,—marked symptom of the heart on lying down after dinner.

"Hæmoptysis from anger,—suppressed hæmorrhoidal flow;—debauchery;—especially of drunkards."—*Hg.*

Spinal Symptoms.—"Affects the cerebro-spinal axis in the same manner as that unseen, immaterial, impalpable cause, which, by its action upon the cerebro-spinal axis, leads to the production of tetanic spasms."—*Hempel.*

"Paralysis, resulting from softening of that portion of the cerebro-spinal axis which sends off nerves to the paralyzed limb, with diminished temperature, especially in paralysis of drunkards."—*Hempel.* [Excellent in softening of the brain.]

"Most useful to spinal meningitis before the disease has progressed to the stage of actual exudation."—*Bachr.*

"Epilepsy, where the spinal centers are prominently involved, as shown by the shocks and jerks so characteristic of *Nux vomica*."—*Hempel.* [Complete opisthotonos.]

"Feeling as if bruised all over system."—*Hg.* [Rheumatism.]

"Tearing pain, by paroxysms, in the nape of the neck in the evening."—*Hah.*

"Constant pain and bruised sensation in the back and small of the back."—*Riedlinus.*

"Pain in the small of the back and knees, as if beaten and bruised."—*Hah.*

Spine greatly prostrated from sexual excesses; complete prostration. Use *Strychnia* in 3d dec. trituration in spinal anæmia.

Limbs.—Aching, drawing pains with great lassitude.

"Trembling of the limbs and jerking of the heart."—*Hah.*

Spasmodic pains in the limbs, with chilliness, internal beating after yawning and stretching."—*Hah.*

"Great weariness and relaxation of all the limbs after taking the open air."—*Hah.* [From chronic indigestion.]

"Sensation of sudden loss of power of the arm in the morning."—*Hah.*

"The longer he lies in bed in the morning, the more pain he has in all the limbs, especially in the joints, as if beaten, relieved after rising."—*Hg.* [Rheumatoid affections.]

"Tottering and unsteadiness of the lower extremities."—*Hah.*

"Paralytic drawing in the muscles of the thighs, and calves painful on walking."—*Hah.* [Excellent in spinal paralysis.]

"Cramp in calves of legs."—*Hah.* [Trembling of limbs.]

"Falling asleep of the soles of the feet."—*Hah.*

"Everything makes too strong an impression upon him; the slightest touch of hand immediately brought on spasms."—*Hah.*

"Violent contractive, painful sensation through the whole body."—*Hah.*

"Strychnia is indicated in all cases of paralysis from exhaustion of the spinal cord, spinal anæmia, reflex paraplegia, hemiplegia, or white softening."—*Hale.* [2d and 3d dec. triturations.]

To cure paralysis of the limbs, Brown-Sequard, Hammond, and Trousseau advise Strychnia to be given in sufficient doses to cause slight drawings and jerkings in the affected parts; and this action is always manifested first in the paralyzed limb.

Sciatica in hæmorrhoidal and dissipated people, with indigestion.

Paralysis with numbness and coldness of the paralyzed parts, caused by apoplexia, sexual excesses, or especially alcohol.

Fever.—The *Nux vomica* fever is intermittent, with decided morning aggravations, malarial in origin, and the motor nerves are greatly affected.

"Sensation of chilliness on the back and limbs, in the morning, with painfulness of the skin as if it had been frozen, and a sensation of falling asleep in the limbs, like that caused by cold weather, in the morning."—*Hah.*

"Anticipating morning fever; chill with aching in the limbs; gaping; blue nails; then thirst; long-lasting fever; apyrexia marked by gastric and bilious symptoms; legs feel paralyzed."—*Hg.*

Sweat sour, cold, and clammy, or but very little sweat.

Paroxysms always irregular, with excessive rigors.

The least motion produces chilliness, and the gastric and bilious symptoms predominate. *Nux vomica* is one of the most useful remedies in intermittents; and, in intermittents where the gastric symptoms predominate, with severe nausea, it will do very much, especially if the motor nerves are very much affected, as shown by excessive rigors.

Peculiarities.—The symptoms are worse in the morning; made worse by motion, and exposure to cool air; relieved by warmth. The opposite of *Pulsatilla*.

"The sleep of *Nux vomica* is peculiar; instead of being wide awake in the evening, as under *Pulsatilla*, the prover falls asleep in his chair, is very heavy on going to bed, and sleeps imme-

diately. On the other hand, an hour or two before day-break, he awakens and can not sleep again."—*D.*

"Many of the symptoms occur or are aggravated immediately after eating; whereas, under Pulsatilla, they do not occur until several hours after eating."—*D.*

"Nux vomica is chiefly successful with persons of an ardent character, or a temperament disposed to anger, spite, or deception; always irritable and impatient."—*Hah.*

"Particularly suitable when the patient is worse in the morning than at any other time of day; when he awakens about 3 a. m., and remains wakeful with a multitude of ideas crowding in his mind, and when, just at day-break, he falls involuntarily asleep, filled with busy dreams, from which he awakens tired and indisposed to rise. It is also adapted to persons who, several hours before bed-time, fall asleep in their chair."—*Hah.*

Nervous, melancholic people, troubled with indigestion.

Aggravation.—From mental exertion; especially mornings; after dinner; in open air; dry weather; slight touch; from motion; from anger; from intoxication; from eating too much; especially spices and rich food; from narcotic medicine; from cold, and from coffee and tea.

Amelioration.—From warm air; evenings; during rest; from lying down, and in damp, wet weather.

OPIUM.

Poppy.

Habitat: Asia, etc. Trituration. Tincture of the pulverized Opium, Class IV.

Antidotes.—Emetics, Atropia, Strong Coffee, Camph., Wine, Vegetable acids.

Through the cerebro-spinal nervous system, Opium has fifteen special centers of action:

- I. BRAIN. *Intense Congestion; Profound Coma.*
- II. SPINAL CORD (POSTERIOR). *Complete Anæsthesia.*
- III. VAGL. *Paralysis of the Respiratory Center; Asphyxia.*
- IV. EYES. *Oculo-Motor Paralysis; Pupils Greatly Contracted.*
- V. HEART. *Pulsations Lessened, from Vagus Paralysis.*
- VI. VASO-MOTOR S. *Small Doses Excite; Large Doses Paralyze.*
- VII. DIGESTIVE O. *Appetite Destroyed, with Great Thirst.*
- VIII. MUCOUS MEMBRANES. *Secretions Completely Arrested.*
- IX. STOMACH. *Nausea and Vomiting (Centric).*
- X. INTESTINAL CANAL. *Obstinate Constipation.*
- XI. KIDNEYS. *Diminished Secretions; Solids Increased; Calculi.*
- XII. SEXUAL O., MALE. (1) *Venereal Excitement;* (2) *Impotence.*
- XIII. SEXUAL O., F. (1) *Menses Increased;* (2) *Complete Susp.*
- XIV. SKIN. *Copper-Col'd; Exces. Diaphoresis; Prurigo; Eczema.*
- XV. *Nutrition Destroyed; Emaciation; Imbecile; Chronic Liars.*

Cerebro-Spinal Nervous System.—In writing up this drug, I shall include the effects of its Alkaloid, the Sulphate of Morphine, their action being so nearly alike. "In small doses, as from a quarter of a grain to one grain, Opium produces, upon those who are accustomed to its use, a soothing and luxurious calm of mind and body, followed, in the course of forty or fifty minutes, by a disposition to sleep, which gradually steals over the senses, and at last wraps the mind in unconsciousness; or, if sleep does not take place, there is a repose of the body undisturbed by pain or external annoyance; and a crowd of dreamy and pleasing thoughts sweep across the field of the imagination.

At the same time, the pulse, which was at first slightly quickened and more frequent, becomes somewhat slower, the mouth and pharynx are rather dry, and often perspiration breaks out upon the skin. The sleep produced by such a dose of Opium may last all night, if taken at bed-time; during the day, it will hardly exceed two hours in duration.

"Larger doses, as from one to three grains of Opium, produce much more decided effects. The stage of excitement is much more strongly marked; the head feels full, hot, and sometimes light; buzzing noises are in the ears, the face and eyes are injected, while the pupil is more or less contracted. Flashes of light are apt to appear before the eyes; the ideas are confused and extravagant, and sometimes there is delirium; the pulse is fuller and more frequent; the skin is hot; the mouth and fauces dry; generally there is nausea, and in some cases vomiting. To these symptoms, depression succeeds. The pulse beats more slowly, and often irregularly; the head feels heavy and full, and all the senses lose their acuteness; the countenance assumes a stupid, besotted expression, produced by the turgidness of the features, the dullness of the eyes, and the drooping of their lids; there is a strong indisposition to think or move; or, more properly, an inability to make any exertion either of mind or body; the speech is thick and hesitating, the muscles of the limbs are affected with spasmodic movements, and, if the patient attempts to walk, he feels giddy and oppressed, and staggers like a drunken man. An irresistible propensity to sleep promptly follows these symptoms; and, when yielded to, the breathing becomes laborious, and often stertorous, while the surface of the body sometimes grows pale and damp, with cold feet and hands. The sleep may be deep, prolonged, and tranquil, but, produced by the doses mentioned, is much more apt to be disturbed by frightful dreams, from which the patient frequently awakes to relapse immediately into the previous condition. These symptoms are greatly modified by various morbid conditions, and peculiarities of temperament.

"*Narcotism*.—Poisonous doses of Opium produce effects like those just enumerated, except that they are much more decided, and are not preceded by any distinct stage of excitement. They are thus described by Dr. Beck. 'The following symptoms are usually observed within a short time: Giddiness, insensibility, and immobility, respiration scarcely perceptible, and a small, feeble pulse, which sometimes becomes full and slow. The eyes are shut, the pupils contracted, and the whole expression of the countenance is usually that of deep and perfect repose. As the

effects increase, the lethargic state becomes more profound, deglutition is suspended, the breathing is occasionally stertorous, the pupils are insensible to the application of light, the countenance is pale and cadaverous, and the muscles of the limbs and trunk are in a state of relaxation. Vomiting sometimes supervenes, and there is an occasional glimpse of returning animation; but the comatose state soon returns, and death, which is sometimes preceded by convulsions, rapidly follows.'

"Mode of Action.—Dr. C. Hanfield Jones has proposed a very plausible solution of the problem. Guided by the light which physiology has thrown on the functions of the vaso-motor nerves, and by the numerous facts which prove that in natural sleep there is less blood in the brain than during waking hours; which also prove, that, when the cerebral circulation is active, sleep is impossible, while it is promoted by everything which tends to diminish the cerebral afflux, as cold to the head, tepid pediluvia, and compression of the carotids; and which further demonstrate that, in the fatal sleep produced by extreme cold the brain is often found exsanguineous,—Dr. Jones concludes that Opium causes sleep, in part at least, by its action on the vaso-motor nerves, producing a contraction of the cerebral arteries. The supply of blood being diminished, the functions of the hemispheres are for a time in abeyance. The opposite phenomenon is produced by Belladonna and Stramonium; they dilate the arterial capillary vessels; hence the congestion and maniacal delirium. Knowing this fact, we have additional ground on which to found the conclusion that the physical cause of natural sleep and of sleep from Opium is one and the same. There are, however, two stages of the operation of Opium, according to its dose, in which the internal physical effects and the external phenomena are alike different. The one is during the stimulant action of the drug, when the face is flushed and there is evidently hyperæmia of the brain; and the other when, the specific soporific effects having subsided, either reaction takes place, renewing in some degree the vascular turgor of the head, or else, the nervous power having become exhausted, the blood stagnates in the engorged vessels, and profound coma, with stertorous breathing and a turgid countenance, indicates the approach of death by compression of the brain. . . . After death from poisoning by Opium, the convolutions of the brain are found to be flattened; the vessels of the cerebro-spinal axis and its investing membranes are gorged with black blood, and the capillaries of the brain give out on incision minute drops of the same fluid. A serous liquid is usually met with

in the ventricles of the brain, and under the cerebral face of the arachnoid membrane. The lungs, heart, liver, and spleen are in most cases distended with dark and fluid blood."—*A. Stille, M. D.*

The symptoms as narrated above are the usual ones produced by this drug; "yet, in certain individuals, Opium provokes quite different phenomena. One of the most common of these departures from the ordinary course of symptoms is an excessive depression following the sleep produced by moderate doses of the medicine. This state is seen, so far as my experience goes, most usually in females of weak, nervous constitutions, such as are peculiarly liable to attacks of neuralgia. The symptoms are a feeling of weakness and prostration, often accompanied by chilliness, dull headache, and giddiness, but especially marked by intense nausea and frequent vomiting. Very frequently the latter does not occur so long as absolute rest in the horizontal position is maintained; indeed, an almost diagnostic sign of this affection may be found in the fact that the stomach is quiet so long as the patient keeps the head upon the pillow, but the distress occurs at once upon rising up. In some cases, this condition of depression even replaces the normal second stage, so that Opium, instead of inducing quiet sleep, will provoke alarming depression and vomiting, either with or without drowsiness. Thus, cases have been reported, in which one-fourth of a grain, or a somewhat greater quantity, of Morphia, hypodermically injected, has been followed by syncope, with struggling for breath, and apparently imminent or even present death. A rarer idiosyncrasy exists in those persons who are rendered by Opium very delirious, it may be even wildly so. In certain cases, partial or complete convulsions have occurred."—*Dr. H. C. Wood.*

The Spine.—"The peripheral motor nerves, by the direct application of the poison, are at first thrown into a state of excitement, which lasts only a short time, and then into the opposite condition of greatly diminished excitability. Daily experience teaches us that the sensory nerves and nerve extremities in the human subject are similarly affected; for, when we administer a subcutaneous injection of Morphine, the nerves lying nearest to the point of application suffer greater reduction of excitability than others. This influence of the nerves is in itself an obstacle to reflex action and a considerable impediment to the operation of the will. . . . As to its possible influence on the spinal marrow, we have no experimental evidence; but it may be concluded from analogy that the excitability of the spinal marrow is affected in the same manner as that of the rest of the nervous

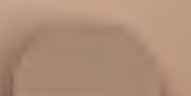
system. It is evident, however, that the influence upon the spinal marrow in the human subject is less marked than that upon the brain.

"The convulsions which occasionally come on during Morphine-poisoning, and which correspond to Opium-tetanus in the frog, might be supposed to proceed from excitement of the spinal marrow at a time when the reflex inhibitory center, the brain, is already in a condition of diminished excitability.

"The vomiting which is so frequent a symptom, must, in most cases, be due to irritation of the vomitory centers by the poison; at any rate, the circumstance that vomiting sometimes occurs after the poison has run its course and convalescence has set in, points to a central origin."—*Ziemssen*.

Respiration.—"Death occurs from Opium, in the great majority of cases, by failure of the respiration; and that such failure is due to direct action of the poison upon the respiratory centers in the medulla, is proven by the fact that Morphia affects the breathing of dogs and rabbits whose pneumogastrics have been cut, as much as it does those whose nerves are entire."—*Wood*.

"Respiration becomes remarkably slow as the narcotic effects of Opium are developed, and, when full narcosis is developed, is indeed scarcely perceptible. On this account, the blood which returns from the lungs to the heart has undergone a very partial revival, but yet continues to circulate. Every moment, however, the proportion of oxygenated blood in the circulating mass grows less and less, until it reaches a point of impurity which deprives it of its power of stimulating the organs to perform their vital acts; and death soon takes place. This explains why the blood of those who have perished by narcotic poisoning is so intensely black, and why, also, the most direct remedy for narcotic asphyxia is the introduction of oxygen into the lungs by artificial respiration."—*Stille*.

Eye.—The action of Opium upon the pupil is not fully settled. Dr. Wood says: "Since Morphine locally applied does not affect the pupil, it follows that its constitutional action upon the latter is through the nerve centers." It is probable, but has not, that I am aware of, been experimentally proven, that the contraction of the pupil is due to a stimulation of the oculo-motor nerve centers, and that the dilatation of the pupil as death approaches is due to a paralysis of the same. Indeed, it can not well be otherwise; for, if the primary contraction were due to paralysis of the sym-


thetic, the secondary wide dilatation would be impossible; the dilating force—i. e., the sympathetic—having been withdrawn, the pupil would not widely expand, even if the contracting force—i. e., the oculo-motor—were paralyzed." Drs. Harley, Ringer, and Ziemssen all agree with Dr. Wood; but Drs. Hughes, Stille, and Austie believe it is due to sympathetic depression.

The condition of the pupils in cases of poisoning is an important prognostic sign. The greater the contraction of the pupils, the more grave is the poisoning. If they are contracted to the size of a pin's head, we may regard the case as one of great danger; and, if smaller, death is certain to follow.

Circulation.—"The influence of Morphine upon the heart is seen when poisonous doses are given, and consists, in animals also, in initial acceleration of cardiac contraction, which is succeeded by diminished frequency of pulsation, and ultimately by absolute cessation of cardiac action, the contractions becoming irregular shortly before death. The cause of the initial acceleration of the cardiac action has not yet been sufficiently elucidated by experiments; but it seems very probable, from the researches of Gscheidlen, that the musculo-motor elements in the heart are first stimulated by Morphine; for, when he had divided the vagus of a dog or rabbit before poisoning with Morphine, the frequency of pulsation increased still more after the poisoning. This experiment seems to support the above conclusion, more especially as the influence of this poison on the sympathetic is comparatively slight. The subsequent retardation of cardiac contractions, however, depends upon an excitement of the vagus at its origin in the brain; for, in the first place, the retardation does not occur when the vagi have been divided before the poisoning; and, secondly, the retardation sets in immediately when a solution of Morphine is injected into the peripheral end of the carotid; therefore in the direct current toward the brain. At the same time, the extremities of the vagus in the heart are thrown into a state of increased excitability. With large doses of Morphine, however, the extremities of the vagus become paralyzed; consequently, with very large doses of Morphine, the pulse ought eventually to become again more frequent (through paralysis of the vagus); but it is not so, and for this reason, that, as Gscheidlen has shown, Morphine exerts eventually a paralyzing action also on other portions of the heart, especially on the excito-motor ganglionic cells in it. But the cardiac muscle also experiences a considerable loss of excitability, and remains motionless when strong currents are

brought to bear directly upon it. Therefore, cardiac contraction must always diminish more and more, till it ceases altogether."—*Ziemssen*.

Vaso-Motor System.—"Morphine exercises first a constricting, then a dilating, influence on the vessels, through the vaso-motor nerves, which are primarily excited, and subsequently paralyzed at their centers. Gscheidlen succeeded in directly observing this influence on the vessels in the abdominal cavity of animals; the peripheral portion of the vaso-motor system is affected in the same way, even when the influence of the central organ is cut off by division of the cervical marrow. In severe poisoning, complete paralysis of the vaso-motor center takes place, but not complete paralysis of the peripheral vaso-motor nerves, for these can still be stimulated by direct irritation or from the cervical marrow, so as to produce contraction of the vessels. The blood-pressure is in accordance with this condition of the heart and its vessels. According to Gscheidlen, it rises at the beginning of the action of Morphine; and, even when the pulse becomes slow, this increase of blood-pressure still continues, a circumstance doubtless depending on the vaso-motor contraction of the vessels; subsequently the blood-pressure becomes sub-normal, a natural result of the dilatation of the vessels and the diminution of cardiac force. As in human beings, so also in animals, respiration is retarded; this retardation proceeds from diminished excitability of the respiratory center in the medulla oblongata, as Gscheidlen's experiment proves, in which, upon injection of the poison toward the brain, through the peripheral extremity of the carotid, retardation of respiration at once set in. This diminution of the activity of the respiratory center may lead to complete apnœa, and so to death by asphyxia."—*Ziemssen*.

Digestive Organs.—"The influence of the occasional use of Opium upon the appetite is very striking; it almost entirely destroys the cravings of hunger; and, when it disposes to sleep, and during its narcotic influence, it inspires disgust for food. The power which Opium has of repressing the appetite is effectually made use of by the Tartar couriers, who, in their long and rapid journeys, have no time to stop for refreshment. The habitual use of Opium, however, seems to annul this effect; the stomach becomes tolerant of the stimulus, and learns to perform its function with considerable regularity; but, when the usual quantity of the drug is much diminished, indigestion comes on,

with that horrible craving before alluded to, which will not be pacified by food, but only by an increased dose of Opium.

"While Opium diminishes the appetite for food, it augments the thirst, adding another to previous proofs that these sensations depend upon different causes. It is supposed by many that hunger is produced by the peristaltic movements of the empty stomach, causing attrition of the opposite faces of its lining membrane. On this supposition, Opium, by arresting these movements, and at the same time blunting the sensibility of the gastric nerves, would suspend or mask the sensation. Thirst, on the other hand, seems to be excited by dryness of the mucous membrane of the stomach; and, as we shall see, *Opium diminishes all of the internal secretions*; a sense of dryness in the mouth and throat is indeed one of the first and most ordinary effects. Hence, we may plausibly explain why Opium at the same time appeases hunger and excites thirst. It may be added, that these effects can not be due to any topical action of Opium in the stomach; because they occur with equal uniformity whether the Opium be swallowed, or its salts be introduced through the skin.

"Not only do Opiates, when first administered, destroy the appetite, they also embarrass or suspend altogether the digestive process; the food which is taken while the system continues under their influence remains undigested, as is proved by the fact of its being subsequently rejected without having undergone any alteration; or, if the Opiate is administered during the first stage of digestion, the subsequent assimilation of the food is retarded or prevented. MM. Trousseau and Pidoux hence derive their caution not to place a patient under the influence of this drug while his stomach contains food, or immediately before eating.

"The insensibility of the stomach to other stimuli, produced by Opium, is perfectly analogous to that noticed in the case of food. It is a familiar fact that larger doses of emetics are required to produce vomiting in persons under its influence than either before or after its action; and this circumstance has a valuable application in the treatment of narcotic poisoning, in which considerable quantities of the most active emetics often fail entirely to evacuate the noxious substance.

"Opium, however introduced into the system, is very apt to occasion nausea or vomiting. This nausea and vomiting is produced in two ways: When the salts of Morphia are applied hypodermically for several successive days, they excite vomiting for the first two or three days, and afterward occasion only nausea; but, when taken internally, vomiting does not take place during

the first few days, and then commences and continues during the subsequent administration of the drug. In either case, it occurs much less frequently in males than in females, and particularly in those of nervous temperament. It is not to be supposed, however, that this symptom is at all of uniform occurrence; nausea, on the other hand, affects nearly all who use the preparations of Opium medicinally, and with the peculiarities mentioned in regard to vomiting.

"The paralyzing powers of Opium are not less evident in its effects upon the bowels. Constipation almost invariably follows its medicinal employment, at least during the earlier periods of its administration; after its protracted use, this symptom gradually yields. This has been observed in the Opiate treatment of acute rheumatism by Drs. Corrigan, Stokes, and others. We once treated a case of this disease, in which the patient, after three or four days, took a grain of Opium every hour; by that time it ceased to confine his bowels, which continued to move regularly every day. The suspension of the alvine secretions by Opium, as well as the torpor of the intestinal muscles, doubtless contributes to promote constipation. It is probable, also, that, as observed by Sproegel, the diminished secretion of bile may contribute to this effect; not merely that the liver fails in its function, but also that the movements of the gall-ducts and of the duodenum, which solicit the discharge of the bile, become sluggish and feeble.

"It has been found that *Morphia*, used hypodermically, uniformly produces constipation alone, while the same agent, given internally, confines the bowels during a few days only, and then in some instances occasions diarrhœa."—*Stille*.

Kidneys.—The major portion of *Morphia*, when introduced into the system, is eliminated by the kidneys, Dr. Hilger has found it in the urine of animals, and Bouchardat has detected it in the urine of a person who had only taken three-quarters of a grain of the aqueous extract of Opium. In habitual Opium-eaters, *Morphia* appears in the urine not longer than seven days after the cessation of the habit.

"MM. Trousseau and Pidoux have studied with care the influence of Opium upon the secretion of urine, and find, from their observations, that it is more frequently diminished than increased; but that, in general, the use of an Opiate, in pretty full doses (as one or two grains of *Morphia* in twenty-four hours), must be continued for at least two days in order to produce

either effect. The authors above report, that, in five cases of retention of urine caused by Opiates, and in which no urine had been passed for one or two days, not more than six or eight ounces of liquid were drawn off when the catheter was used. It is certain, however, that Morphia sometimes increases the amount of urine discharged, while its density is diminished. We have never known this effect to follow the use of Opium. A ready explanation of the diminished secretion of urine under the influence of Opium is found in the copious discharge of fluid from the skin, which, as will presently be shown, takes place from the same cause. Next to the bowels, the skin and the kidneys are the two great emunctories of the system, the former being most active in warm, and the latter in cold, climates or seasons; the one serving as an alternate to the other. Unless, from some morbid cause, there is an excess of fluid in the body, activity of one of these organs indicates that the other is in repose.

"The retention of urine produced by Opium has been variously explained. According to some, it depends upon the small quantity of urine secreted; but more than enough is usually contained in the bladder to excite its contraction, were not this prevented by some other influence. The power of Opium to paralyze the muscles and blunt sensibility, as already pointed out in the case of the digestive organs, is quite sufficient to account for the phenomenon under notice. If it is objected that the urine is not, as in cases of paraplegic paralysis, discharged involuntarily, a sufficient answer is that the quantity collected in the bladder is at no time very large, except in very rare cases, in some of which, indeed, the urine drips away without the patient's consciousness.

"MM. Trousseau and Pidoux have pointed out another cause of difficult urination arising from Opiates, to which they attach a paramount importance, the diminution, namely, of the mucus which lubricates and protects the lining membrane of the bladder. Doubtless, this membrane, like the mucous coat of the mouth, pharynx, and digestive canal, ceases to secrete mucus in due proportion when the system is affected by Opium; to this cause we may fairly attribute the strangury which often attends the efforts to pass water; for the sphincter vesicæ is, in all probability, irritated to spasmodic contraction; but it does not appear to form a sufficient cause for simple retention of urine without strangury."—*Stille*.

Mucous Membranes.—The secretion of mucus from the gastro-intestinal canal and respiratory organs, is greatly diminished

by the action of Opium and Morphia. This wonderful dryness of all the mucous membranes is a marked effect of this drug, and is found in the mouth, fauces, and larynx, with difficult deglutition, and a dry, husky voice, with a tormenting dry, paroxysmal, titillating, spasmodic cough; and in the bowels this dryness is shown by the obstinate constipation.

Sexual Organs, Male.—In male adults, during the stage of narcosis, but more commonly in that of excitation, Opium produces priapism. The first effect of this drug, probably through the vascular system, is excitement of the venereal propensity. "The fact, that, in the bodies of those who have died while under the influence of Opium, the penis has sometimes been found in a state of erection, proves nothing in favor of the specific aphrodisiac powers of the drug, but only shows such cases to be analogous to those of death by hanging, and other instances of cerebral congestion, in which a like phenomenon has been observed. The long-continued abuse of it much more certainly induces impotence, yet not by direct organic action so much as by involving the whole system in debility."—*Stille*.

Sexual Organs, Female.—Opium increases the menstrual discharge, and brings on irregularity. In excessive quantities, it tends to suspend the menstrual function.

Uterus.—"Dr. P. C. Barker claims for Opium a special power as a parturient agent, in those cases in which the circular fibers are alone called into action, while the longitudinal and oblique fibers contract irregularly, that is, in false pains. He believes that Opium possesses the power of relaxing the circular fibers, at least of the os, and of stimulating the longitudinal and oblique fibers into active contraction. A more simple and intelligible rationale would seem to be that the relaxation of the os uteri produced by Opium permits the body of the organ to assume its natural rhythmical contractions."—*Stille*.

I have had the most pleasing results, in false pains, uterine neuralgia, violent after-pains, and menstrual colic; and, in many cases where other remedies have failed, I have been able to prevent an abortion with one or two doses of Morphine.

Skin.—Opium acts prominently upon the sudoriferous or sweat glands. "Nothing is better established than the power of Opium to excite perspiration. This property of the drug was well known to the older writers. Bonatus says, 'We have hardly any diaphoretic so faithful, so certain, or which so well deserves

the name;' and Cullen declares, that 'at all times Opium has been found to be the most effectual of all sudorifics.' Many of the old stimulant diaphoretics owed their activity entirely to the Opium contained in them. Cases of poisoning by this agent strikingly illustrate its sudorific powers; for, in most of them, the skin is bathed in a profuse, and sometimes greasy and graveolent, sweat, while its temperature continues at the natural standard, or is even above it. It is said, that, when the salts of Morphia are employed hypodermically, the perspiration breaks out first in the neighborhood of the part in which the inoculation is made, and thence extends to the entire surface. It is usually, however, most copious upon the face and breast. The heat of the skin is meanwhile increased, and remains so as long as the sweat continues, which is ordinarily for twenty-four hours. The diaphoretic influence of Opium is much more distinctly exhibited in females than in males. A very common effect of Opiate medicines, and, if we are not mistaken, of the salts of Morphia especially, is an intolerable itching of the skin. So intense is the irritation arising from this cause in some instances, that the anodyne and composing influence of the drug is entirely annulled, and the patient tosses about the bed, unable to find comfort in any position, and rubs or scratches every part of the body with violence. This itching is quite independent of the cutaneous eruptions which Opiates frequently occasion, and which usually consist of slightly elevated and reddish patches resembling those of measles, or are still more prominent, like the wheals of urticaria. The latter, as well as prurigo and eczema, are not unfrequently developed around the margin of the blistered surface upon which a salt of Morphia has been sprinkled, and give rise to a very annoying degree of itching. In a case in which the eruptions just mentioned appeared on taking even the smallest dose of Opium, there was at the same time an almost complete loss of sight and hearing."—*Stille*.

Morphine has also produced an exanthem resembling scarlatina, and Steinboemer has seen it produce a vesicular eruption. Also, a yellow, copper-colored skin is a marked effect of the continued use of Opium.

Nutrition.—*Chronic Opium and Morphine poisoning*, as seen in habitual users of this drug, shows itself in defective nutrition. "The most characteristic symptom of chronic Opium or Morphine poisoning is general disturbance of nutrition. This, however, is not the result of increased tissue-degeneration, nor of accelerated

tissue-change, but is due to diminished absorption of food in consequence of the catarrh of the stomach and intestines which exists. This defective nutrition can never give rise to a sensation of hunger, on account of the steady, simultaneous reduction of the impressionability of the sensory nerves. The excreta of persons in this condition, though less than in the normal state, are nevertheless in excess of the ingesta; hence the result is complete emaciation. Much has been written upon tissue-change under the influence of Morphine and Opium; and it has been generally maintained that change of tissue has been retarded. Boecker, especially, maintained that the solid constituents of the urine were diminished under the use of Opium. Experiments which I have made with Morphine on dogs, with the necessary precautions, showed that, by the use of Morphine, the decomposition of the nitrogenous tissues suffers a very slight decrease,—a result which depends on the diminution of blood-pressure and of the flow of fluids through the parenchymatous tissue. A further investigation, carried out by Dr. J. Bauer and myself, as to the excretion of Carbonic acid under the influence of Morphine in dogs and cats, showed that Morphine acts only indirectly upon the excretion of Carbonic acid by its influence on muscular activity. When the muscular movements were increased by Morphine, or when convulsions in animals were produced, the formation and excretion of carbonic acid were greater than in the normal condition; but if, on the other hand, Morphine induced muscular inactivity or sleep, the production and excretion of Carbonic acid were diminished. The loss of appetite which chronic Opium-poisoning creates may depend somewhat upon the paralytic condition of the vessels and nerves brought about by the constant influence of the poison.

“As to the origin of the neuralgias, anæsthesia, hyperæsthesia, and the other symptoms of chronic Meconismus, it is explained partly by the general disturbance of nutrition, which leads to fatty degeneration of most of the structures of the body, partly, also, by the direct influence of the poison upon the substance of the nerves.”—*Ziemssen*.

General Effects.—Dr. McPherson draws a frightful picture of the derangement of the nervous system from the habitual use of Opium internally, or by smoking.

“The stooping figure, the shuffling gait, the drooping eyebrow, and dull eye surrounded by a livid circle, give an appearance of premature decrepitude. The sexual organs lose their

power in both man and woman; and in men there is often a gleety discharge; in the female, the secretion of milk is defective. Ultimately, the stomach is the seat of an incessant gnawing pain, the food is vomited, diarrhœa comes on, the urine is turbid, and Bright's disease is not uncommon. Dr. Libermann adds, in describing the state of chronic delirium into which the Opium-smoker ultimately falls: 'The wretched man is assailed by the most various hallucinations, but all very unlike the voluptuous visions which he enjoyed on his first dalliance with the poison. The most disgusting objects and the most horrible scenes are perpetually before him, but mostly at night, when he in vain seeks refuge from his misery in sleep. He is haunted by spectral toads and all manner of obscene animals, or a fiery dragon swoops around and drags him into a flaming pit. Sometimes he endures all the tortures of a Buddhist's hell; or, fancying himself one moment in voluptuous embraces, the next, he finds within his arms the mangled limbs of a hideous monster. These images, which, we are assured, are literal copies of the Opium-eater's phantasms, present a vivid resemblance to the more familiar spectral illusions of delirium tremens.'—*Stille*.

"The habitual use of Opium diminishes in a remarkable degree the susceptibility to its action. Numerous instances are on record in which a pint or more of Laudanum has been taken daily, or several hundred grains of Opium, or a scruple of Morphia. The author has met with a patient who took a scruple of Morphia a day subcutaneously. A gradual increase of the dose becomes necessary in order to produce a given physiological effect; but the increase is much slower when given subcutaneously than when it is administered by the stomach."—*Bartholow*.

Dose.—*One to four grains of Opium; of Morphiæ sulphas, one-sixth to one-half of a grain.*

Active Principles.—The active principles found in this drug are:

Narcotina.—A feeble narcotic. Ten to fifteen grains produce diaphoresis, nausea, giddiness, and vomiting.

Codeia.—Action very similar to Morphia, without producing nausea, vomiting, or obstinate constipation. Dose, one-quarter to one grain.

Narceia.—In doses of from one to five grains, it is a feeble hypnotic, without sweating, vomiting, or constipation.

Meconine.—Similar to Narceia, but more feeble.

Cryptopia.—Marked hypnotic, about one-fourth as strong as Morphia.

Thebaia.—One to two grains produces a hypnotic and tetanizing action.

Papaverine.—Doses of six or eight grains act slowly and very similarly to Morphine, not acting so much on the digestive organs.

Therapeutic Individuality.

Head.—In all diseases that call for the use of Opium, the central difficulty will be found in the brain.

Great drowsiness, profound stupor, with stertorous breathing.

Profound coma; patient can not be aroused from stupor; pupils greatly contracted, or widely dilated; face puffed, with dark red or cherry-brown appearance; stertorous breathing; pulse full and labored, or slow and feeble.

"Complete insensibility, so that it was impossible, either by pulling the hair or pinching the skin, to excite any wincing or signs of uneasiness; sudden affusion of cold water produced no effect."—*Dr. Harrison*.

Dullness of the head, no mental grasp for anything.

"The face is purplish and swollen, with soporous sleep, stertorous breathing, and vomiting."—*G*.

Mind.—All Opium-eaters are *chronic liars*.

"Diseases that originate from fright, the fear of the fright still remaining."—*G*.

"Thinks she is not at home; this is continually in her mind; face purplish and swollen."—*G*. [Congestion of the head.]

"Very sleepy but can not sleep."—*G*. [Or profound coma.]

"Sleeplessness, with acuteness of hearing; clocks striking and cocks crowing at a great distance, keep her awake."—*Fincke*.

Unrefreshing, soporous sleep, with eyes half open; snoring during inspiration and expiration; congestion of the brain.

"Screaming before or during the spasm."—*G*.

"Delirious talking; eyes wide open; face red and puffed."—*Hg*.

Sopor with delirium; depression of the lower jaw; dilated pupils; and general symptoms of paralysis of the brain.

"Drunkenness, with stupor as with smoke in the brain, eyes burning hot, and dry."—*Hg*.

"After a fright, with fear, convulsions, or the head hot, and twitching around the mouth."—*Hg*.

Twitching, trembling of the head, arms, and hands, now and then; jerks as if the flexors were over-acting; body cold, inclina-

tion to stupid sopor; motion of the body and uncovering of the body relieves. (Scarlet fever and measles.)

Vivid imaginations; sees frightful ghosts; easily frightened.

"Although sleepy, he is unable to fall asleep, with slow pulse."

—*Grim.*

"Deep, sound sleep, with rattling respiration, as in apoplexy."

—*Dr. Lassus.*

Sobbing during sleep, with stupefaction and partly open eyes.

"A short cough, caused by a cold; a recent trembling caused by fright; a diarrhœa which has been suddenly occasioned by fear, a cold, or other slight causes; retching which has come on in consequence of a moral emotion, as loathing, etc., yield to Opium."—*Hah.*

In apoplexy, recent cases, Opium has been of great value. Dr. J. Barker has found Apis succeed in several cases of cerebral apoplexy where Opium had entirely failed. Opium is indicated when we have slow, full pulse, with snoring during respiration.

Eyes.—Lids hang down as if paralyzed; ptosis.

"Total or partial paralysis of the accommodation, with impaired sensibility of the retina."—*A. and N.*

"Embolism of the central artery of the retina, with hemorrhagic spots on the disk."—*A. and N.*

"Contracted pupils in cholera infantum."—*Hg.*

"Sensation as if the eye were too large for the orbit."—*Hg.*

"Pupils dilated, and insensible to the light."—*Hg.*

"Eyes dry and weak, with burning, and a sensation as if dust were in them."—*Joerg.* [Face bloated, red and livid.]

Sensation of sand or dust in the eye, with burning in the eyes.

Digestive Organs.—Tongue white, mouth dry, with unquenchable thirst, from arrest of the mucous secretions.

Violent and cutting pain in the abdomen, as if being cut to pieces.

"Colic with great pressure downward upon the rectum and bladder, without any passing-off of fæces, gas, or urine."—*Raue.*

It is of great value in lead colic.

Constipation, stools composed of round, hard, black balls. This is Opium's greatest characteristic, if with violent griping in the abdomen.

"Nervous and irritable; passes nothing but hard, black balls from the bowels."—*Hg.* [From arrested secretions.]

Abdomen distended and tympanitic; from indigestion.

"Opium renders the intestines so sluggish that the most active purgatives lose their power."—*Hg.* [Complete arrest of digestion.]

"Persistent diarrhœa in those treated with large doses of the drug."—*Lippe.*

Urinary Organs.—The expulsive power of the bladder becomes paralyzed, and extensive calculi form in the bladder.

Paralytic incontinence of urine from irritation of the lower portion of the spine; solids greatly increased.

"Nocturnal enuresis; urinates very often; bloody urine."—*G.*

"Frequent urination; she passes little and often, with much burning."—*G.* [Skin very active.]

"In retention of urine, Opium is our best remedy. The secretion of urine is not diminished; but it certainly does cause its retention in the bladder, perhaps chiefly by the blunting of the lining membrane of the neck of the bladder, so that the fullness is not recognized by the patient."—*D.*

Sexual Organs, Male.—"Nocturnal emissions, from plethora of the sexual organs; or emissions without erections, followed by debility and great relaxation of the parts."—*Hempel.*

Complete impotence from lack of nutrition.

Sexual Organs, Female.—Great excitement of the sexual organs of women, with sexual dreams at night and sexual orgasm.

Perfect loss of sexual desire, from lack of nutrition.

Irregular menstruation, or too early, too profuse, with weak, faint spells; from fright.

Abortion from great fright.

"During and after labor spasms, with loss of consciousness and stupor, open mouth; heavy breathing."—*Hg.*

"Suppression of lochia from fright, with stupor."—*Hg.*

"Violent movements of the fœtus."—*Hg.*

Softness of the uterus, with fetid discharge.

"Amenorrhœa from fright."—*Hg.* [Chronic Opium eaters lose the menstrual function completely, and become imbecile.]

Respiratory Organs.—"Hoarseness, with dry mouth and throat, and white tongue."—*Hg.* [With dry cough.]

"Admirable in spasmodic, dry, titillating cough; especially tormenting at night, with scanty expectoration."—*Baehr.*

"Never give Opium in cough with profuse expectoration of mucus, or it will tend to great dryness."—*Baehr.*

I can testify to its great utility in dry, spasmodic nightly

coughs that prevent sleep; the mucous secretion is completely arrested.

"Spasmodic cough, with continued dry titillation, allowing no rest either by day or night."—*Dr. Hirschel*.

"Frequent involuntary deep breathing."—*Dr. Bresslauer*.

Very slow, stertorous, puffing respiration in apoplexy.

"Pulse slow, with slow, stertorous respiration; face extremely red, profuse perspiration, with convulsions."—*Muzell*.

Skin.—Skin feels very dry, but has no fever.

"Very troublesome itching all over; rarely sensitive to the touch."—*Hg*.

"Redness and itching of the skin."—*G*. [Urticaria, measles.]

"The skin hot and damp, or sweating, even in the morning, and a desire to uncover."—*Hg*. [Chronic ulceration.]

Sudden retrocession of acute eruptions; paralysis of the brain sets in; or convulsions, nervousness, and diarrhœa.

Coldness of the limbs; sleepy, but can not sleep from too much blood in the brain. (Very characteristic.)

"Bed feels so hard she can not lie upon it."—*G*. [This last symptom is a prominent key to the use of Opium.]

"Cold perspiration over whole body, especially the head."—*Hg*.

Fever.—Shaking chill, with deep, soporous sleep.

"Hot head, with profuse sweat about the head."—*Dr. Allen*.

"Burning heat, with soporous, snoring sleep."—*Hg*.

"Hot morning sweat, wants to be uncovered, stertorous breathing."—*Allen*.

Congestive chill; paroxysms, regular in time, irregular in stages.

Constantly complains that the bed is too hot; must be uncovered.

Light hair, lax muscles, and want of bodily irritability.

Extremities.—Convulsions from fright, twitching and spasmodic movements of the limbs; heaviness, weakness, and paralysis.

Coldness of the extremities; arms and legs tremble.

Aggravation.—Night and morning; warmth; during rest, from stimulants, and while perspiring.

Amelioration.—From cold; motion; during the day and evening.

OSTRYA VIRGINICA.

Iron Wood.

Habitat: America, etc. Decoction from heart of the tree sawed fine, evaporated to a powder, and then triturated; or tincture from the chips and sawdust, Class IV.

Through the animal nervous system, Ostrya has three special centers of action:

- I. CEREbro-SPINAL SYSTEM. *Intermittent and Bilious Fever.*
- II. STOMACH AND SMALL INTES. *Conges.; Incr'd Secret'ns; Atony.*
- III. LIVER AND SPLEEN. *Congestion; Hypertrophy; Anæmia.*

Cerebro-Spinal System.—The physiological action of this drug is not known; but the light feeling of the head, the severe and constant headache; prickling feeling of the head, face, and hands; feeling of excessive languor; disposition to yawn; cold, chilly feelings, and the constant pain in the lumbar and sacral region, all point strongly to this system as the starting point for the action of Ostrya.

Digestive Organs.—The slimy, coppery, bitter taste; yellow-coated tongue; at first, increased appetite, then, perfect loss of appetite; frequent nausea, with dull frontal headache; constant distress in the epigastric and umbilical regions; sinking sensation in the epigastrium; constant dull pains in the right hypochondrium and stomach; frequent and hard cutting pains in the umbilical region; the bilious, thin, mushy, and watery stool,—all point to a strong action of this remedy upon the stomach, liver, and small intestines.

Therapeutic Individuality.

Its characteristics are unknown. In sporadic and endemic intermittents, with symptoms closely resembling those of China, *especially* if the case has often been suppressed by Quinine, Ostrya will be found one of the most reliable remedies in the *Materia Medica*. In badly treated cases that often occur again and again, with enlarged spleen and great anæmia, it has never failed once.

PETROLEUM.

Rock Oil.

Habitat: America, Asia, etc. Trituration. Tincture, 1 part of Petroleum to 50 of Alcohol.

Antidotes.—*Nux vomica*, *Aconite*, *Terebinthina*, *Pulsatilla*.

Through the vegetative nervous system, Petroleum has four special centers of action:

- I. SKIN. *Eczema; Pustules; Fissures; Vesicular Inflammation.*
- II. GLANDULAR SYSTEM. *Lymphatic Secretions Foul and Fetid.*
- III. DIGESTIVE ORGANS. *Gastro-Enteritis.*
- IV. MUCOUS MEMBRANES. (LUNGS.) *Catarrhal Inflammation.*

Skin.—The action upon the cutaneous system is shown by the excessive sensitiveness of the whole cutaneous surface; trifling injuries cause suppuration; the hands and lips become hard and cracked; warts, corns; humid eczemata on various localities, especially at the ano-perineal region; scrotum, and scalp. The scalp sweats profusely, and the hair falls out. Erysipelatous, vesicular, and pustular inflammation, etc.

Glandular System.—Its action upon the lymphatics is shown by the unhealthiness of the skin which causes a general tendency to ulcerate, and the foul, fetid sweat of the axillæ and feet. It also affects the submaxillary glands and tonsils.

Digestive Organs.—Dr. Lugeol reports one case of death on the twentieth day from a glass of Petroleum swallowed by mistake, with all the symptoms of *gastro-enteritis*. Dr. Mayer says: "A remarkable fact is that there is no spontaneous tendency to vomiting, nor is there usually diarrhœa." This is remarkable; for many in our school testify to its great utility in *sea-sickness*. Drs. Hughes and Bayes have seen wonderful results with the Oil in this difficulty. Sea-sickness being caused by cerebral irritation, we must have a remedy that affects the brain; and here the Oil is at home, for it produces oppression, giddiness, palpitation, faintness; headache with a tendency to stupor; and it has caused frightful tonic and clonic convulsions.

Therapeutic Individuality.

Skin.—Petroleum is especially adapted to chronic ulcerations, used both internally and locally, and to sub-acute and chronic bronchitis.

"Particularly indicated in diseases of the ears, mucous membranes, skin, and joints."—*Muller*.

"Rapid appearance and disappearance of symptoms."—*Muller*.

"Brown and yellow spots on the skin."—*G*.

"Many furuncles on the neck and arms, with ulceration of the ears."—*Muller*. [Excellent in boils and fissures.]

"Deep, fistulous ulcers."—*G*. [Discharges very offensive.]

"Itching herpes on the perinæum."—*G*.

Small wounds spread and ulcerate; sweat fetid.

"Labia majora perspire and itch much."—*G*.

"Spots on the legs are painful to the touch."—*G*.

"Heat in the soles of the feet and palms of the hands."—*G*.

[See Sulphur.]

"Tenderness of the feet when they are bathed."—*G*.

Fetid sweat from the axillæ and feet.

"Cracking of the skin on the ends of the fingers."—*E. M. Hale*.

"Tips of the fingers rough, cracked, fissured, with sticking, cutting pain."—*Hah*. [Chronic eczema.]

"Finger-nails are painful when touched as if bruised."—*Hah*.

"Skin of the hands fissured, cracked, and rough."—*Hah*.

"The patient was unable to bend the head forward, or to turn it, on account of the pain caused by the development of abscesses on the nape of the neck. These furuncles were associated with a moist eruption on the margin of the hair of the occiput, like eczema; one boil after another opened and discharged; the vertigo and other symptoms disappeared."—*Hah*.

"Painful sensitiveness of the skin of the whole body, all clothing is painful."—*Hah*. [Much chafing.]

"The nipples itch and have a mealy coating."—*Hah*.

"Papular eruption on corner of mouth and ears."—*Hah*.

Great tenderness of the feet, which are bathed in foul-smelling sweat.

Mind.—"Irritable, offended at trifles, very quarrelsome; vexed about everything."—*Hah*. [Bilious condition.]

Great fearfulness, with despondency; in gastric affections.

"Very forgetful, disinclined to think."—*Hah*.

"The sleep is restless and full of distressing dreams."—*H. C. Jessen, M. D.*

Head.—"Dullness of the head, as if enveloped in a fog; especially after eating is the head befogged."—*Hah.*

Much vertigo, as if intoxicated, more in the occiput.

"Heaviness of head in the morning, with headache."—*Hah.*

"Heaviness like lead in the occiput."—*Hah.*

"Pressure in the occiput; pulsation in the occiput when lying upon it."—*Hah.* [Chronic indigestion, with anæmia.]

"Much itching on the scalp, worse from scratching."—*Hah.*

"Profuse falling-out of the hair."—*Hah.*

Moist eczema, sore after scratching; tinea capitis.

Ears.—"Inflamed and painful swelling of the meatus auditorius, with rawness and soreness behind the ears."—*Hah.*

"The ear is very painful externally."—*Hah.*

"Diminished hearing, with roaring as of wind in ears."—*Hah.*

Loss of hearing, with much roaring as of wind in the ears.

Inflammation and ulceration of the ear, with cracking sounds.

Eyes.—No better external remedy can be used than purified Petroleum, Cosmoline, and Vaseline, in blepharitis, conjunctivitis granulosa, scabs and agglutination of the lids.

"In disorders of the lachrymal apparatus, especially blennorrhœa of the lachrymal sacs, and recent lachrymal fistula, this remedy is of the first importance."—*A. and N.*

"Scrofulous ophthalmia with pains at the root of the nose, swelling of the lids, purulent discharges from the eyes and nostrils, with pustular conjunctivitis."—*A. and N.*

Ciliary blepharitis from chronic conjunctivitis.

"Burning in eyes, with dimness of vision on exertion."—*Hah.*

Floating black figures, and fiery dots in the field of vision.

Digestive Organs.—"Great accumulation of mucus in the mouth and nose; tongue coated white."—*Hah.*

"Slimy, sour, bitter taste in the mouth."—*Hah.*

"Swelling of the submaxillary glands, and gums very painful."—*Hah.*

Bad odor from the mouth in lung and gastric diseases.

Stomach.—"Ravenous hunger, frequently so that she became quite sick on account of it; frequently awakened by hunger at night. Ravenous hunger, but speedy satiety after stool."—*Hah.* [Incessant nausea and vomiting.]

"Much thirst for beer, for a whole week."—*Hah.*

"Repeated hot, sharp, sour eructations and uprisings."—*Hah.*

Sick, qualmish sensation in the stomach; violent vomiting.

"Nausea and qualmishness all day."—*Hah.* [With vertigo.]

"Nausea in the morning, with accumulation of water in the mouth."—*Hah.*

"Sudden nausea on walking, with accumulation of water in the mouth; sudden heat in the face, with vertigo."—*Hah.*

"Nausea every morning, immediately after waking, she could not eat breakfast."—*Hah.* [Stomach feels empty.]

"Nausea all day, often so violent that it takes away the breath, without vomiting."—*Hah.* [Sea-sickness.]

"Violent vomiting; vomiting of bile and blood."—*Hah.*

"Feeling of great emptiness in the stomach, as after long hunger."—*Hah.*

Drs. Bayes and Hughes have great confidence in Petroleum in sea-sickness; and it has given good results in this affection.

"I have chiefly given it in atonic dyspepsia with a tendency to diarrhoea, or to vomiting, with pains in the epigastrium, tenderness in the epigastrium, occasional pyrosis, and chilly abdomen." *Dr. Bayes.* [Much colic and diarrhoea.]

"Particularly applicable in all gastric troubles of pregnant females."—*G.* [When the head symptoms are prominent.]

"Sensation of repletion after a little food."—*H. N. Martin.*

"Gastralgia whenever stomach becomes empty."—*Dr. Bayes.*

"Gastralgia with pressing, drawing pains; ameliorated by keeping on eating something constantly."—*G.* [Vide *Chelidonium.*]

Dyspepsia with much flatulence, great debility, and cold feeling in the heart.

Abdomen.—"Cold feeling in the abdomen."—*G.*

"Cold feeling in the heart."—*G.* [In obstinate indigestion.]

"Abdomen much distended with gas, for several days."—*Hah.*

"Cutting in the abdomen, with nausea and diarrhoea."—*Hah.*

Stools slimy, with pain in the bowels, and palpitation of heart.

"Much diarrhoea through the day, none at night."—*G.*

"Burning and stinging in anus and rectum after stool."—*Hah.*

"Raw hæmorrhoids; scurf on the anus."—*G.*

"Stools, yellowish watery, mucous and bloody. After deranging the stomach; after sauerkraut; after cabbage; after riding in a carriage; during pregnancy; in the morning, and during stormy weather."—*J. B. Bell.* [Excellent.]

"The most striking symptom of Petroleum is restless sleep,

the patient waking often, and imagining that another person lies sick in the same bed."—*J. B. Bell, M. D.*

Urinary Organs.—Scanty, frequent urination.

"Dribbling of urine after micturition."—*Hah.*

"Great desire to urinate, with itching of the meatus."—*Raue.*

Brown, offensive urine, with burning in the urethra.

Chronic albuminuria with many symptoms of indigestion.

Sexual Organs, Male.—"Itching and moisture of the scrotum."—*Hah.*

Eczema, erections, and pollutions, with sexual excitement.

Chronic prostatitis, with mucous discharges; chronic gonorrhœa; discharges of blood in the semen, with much irritation.

Sexual Organs, Female.—Menses too late and scanty. (See Graphites.)

Vulva very sore, with burning in the vagina; discharge of mucus; the leucorrhœa is acrid, excoriating, and exhausting.

Aversion to coition, in cold, lymphatic females.

Very offensive lochia; from perverted lymphatic secretions.

"Profuse leucorrhœa every day, with lascivious dreams at night."—*G.*

Chronic gonorrhœa, discharges very acrid.

Coccyx very painful on sitting; from the effects of a bruise.

Chest.—Cough and oppression of the chest at night.

Much prostration of the arms and legs; excessive languor.

Phthisis.—Dr. Milton has great confidence in crude Petroleum found incrusting on the bottom of the tanks, which has the consistency of putty, made into three to five grain pills, and given once in four hours. He cured nineteen cases out of twenty-five cases treated. He thinks it acts by preventing inflammation in the lungs, thereby retarding any further destruction of the lung tissue, or directly upon the disease. Prof. J. S. Mitchell has also great confidence in this drug in Phthisis in its first stages, especially the tuberculous variety. He says: "The catarrh of Petroleum is not generally attended with much expectoration; there may be frothy, yellow sputa, and the rattling which does not give rise to much expectoration; there is a disposition to ulceration, both of the nostrils and mouth. In cases where there is great hoarseness, showing involvement of the larynx, it is likely to be beneficial, and when there are pressing, digging pains in the chest.

It has great power to lower the pulse and high temperature. The great exhaustion, etc., all point strongly to Petroleum."

Aggravation.—In open air; from cold; during a thunder-storm, and from riding in a carriage or ship.

Amelioration.—From warmth and rest.

PHOSPHORUS.

An Element.

Preparation: Trituration. Alcoholic solution. The Phosphorus is dissolved by being placed in a hot-water bath in an open bottle: equal to the 3d dec. Etheral solution equal to the 1st dec. Also prepared in Glycerine and Cod-liver Oil.

Antidotes.—Terebinth., Sulph., Calc., Ferr., Nux vom., Camph., Magnesia, Emetics.

Through the great vegetative nervous system, Phosphorus has thirteen special centers of action:

- I. STOMACH. *Gastritis; Gastralgia; Hypert'y; Hæmatemesis.*
- II. INTESTINES (SMALL). *Congest.; Inflam.; Watery Diarrhœa.*
- III. LIVER. *Congest.; Inflam.; Icterus; Hypert.; Fatty Degen.*
- IV. SPLEEN. *Congestion; Hypertrophy; Fatty Degeneration.*
- V. KIDNEYS. *Inflam.; Albuminuria; Hemorrh.; Fatty Degen.*
- VI. HEART. *Fatty Degeneration; Venous Stagnation.*
- VII. ARTERIES. *Fatty Degeneration, with Vast Hemorrhages.*
- VIII. BLOOD. *Corpuscles Dissolved; Hydræmia; Ecchymoses.*
- IX. CER.-S. S. (1) *Stimula.*; (2) *Nutr. Destr'd; Paral.; Neural.*
- X. SEXUAL O., MALE. (1) *Aphrodisiac;* (2) *Paralysis; Impot.*
- XI. SEXUAL O., FEM. *Small Doses Stimulate; Large, Paralyze*
- XII. BONES. (MAXILLÆ.) *Periostitis; Caries; Necrosis.*
- XIII. LUNGS. *Congestion; Inflammation; Hepatization.*

Gastro-Intestinal Canal.—Phosphorus has a powerful action upon this tract. "In its unaltered state, it is not a local irritant. It does not set up gastro-enteritis as the corrosive poisons do, unless it becomes oxidized in the stomach and hypophosphorous acid is formed. But, however it is introduced into the system, it is liable to set up what Virchow calls a gastro-adenitis, a swelling and shedding of the epithelial cells of the mucous membrane like

that we have seen occasionally induced by Arsenic, and like that which obtains in cholera. The same process goes on in the intestines, and is accompanied there by diarrhœa, as in the stomach by vomiting. This is its acute action. But, when gradually ingested by rabbits, Wegener finds it to set up an irritation of the interstitial connective tissue of the stomach, causing a 'chronic indurative gastritis, with thickening, analogous to cirrhosis of the liver.' From these processes may occur the condition described by Taylor: 'Chronic poisoning by the drug is accompanied by cardialgia, frequent vomiting, sense of heat in the stomach, diarrhœa, tenesmus, pains in the joints, marasmus, hectic fever, and disease of the stomach, under which the patient may slowly sink.'—*Hughes*.

"As was first pointed out by Virchow, there is universally a gastro-adenitis, which causes the gastric mucous membrane to be *thickened*, opaque, whitish, grayish, or yellowish-white. Under the microscope, the epithelial cells appear swollen and filled with granules and oil-globules; and, in very advanced degeneration, the cells completely break down. This gastro-adenitis is not due to a local action of the Phosphorus; because it occurs when the poison is introduced through other channels than the mouth. The duodenum and intestines suffer similar changes. The stools are at times normal in character and frequency; but there is generally diarrhœa or constipation, with flatulence. Late in the attack, the passages are in most cases very light clay-colored, or even whitish; and exceptionally they are bloody, and, in some cases, phosphorescent."—*Dr. H. C. Wood*.

In about eighty-eight per cent, Phosphorus produces vomiting; and the vomited matter consists of food, mucus, bile, and blood, and is luminous in the dark. This vomiting generally ceases the second or third day, to re-appear with the subsequent jaundice; the vomited matter now is coffee-colored, from exuded decomposed blood. With this vomiting, there is apt to be much pain and tenderness in the right hypochondrium and epigastric region.

Post-mortem Appearances.—"The gastric mucous membrane is swollen, grayish, and non-transparent, with small or large ecchymotic spots, and rarely ulcers, which are small and in the pyloric region. The mucous membrane of the duodenum often presents the same appearances. That of the small and large intestines is pale, with occasional ecchymosis. The contents of the stomach and intestines are often bloody; the intestines contain little or no bile; and the spleen is often recently enlarged."—*Ziemssen*.

Liver.—The liver is really the greatest special center of action for Phosphorus. No remedy produces more profound alterations of its structure. The first twenty-four hours the gastric symptoms predominate, and then, almost always, "there comes on a comparatively healthy condition which may last two or three days, or even longer. Then the severe symptoms begin, usually with jaundice, which increases more or less rapidly until it reaches the highest degree of intensity; with this comes urticaria, which generally accompanies severe jaundice. Simultaneously with the icterus, there is more or less pain in the epigastrium, especially in the region of the liver. At this time, enlargement of the liver can usually be detected by palpation and percussion; and this organ continues to increase while the patient is under observation; mild febrile disturbances are frequent, and vomiting, now more or less bloody, comes on again. With these symptoms, the heart soon begins to fail, and death ensues. . . . In a very few cases, an apparent diminution in the size of the liver, which was previously enlarged, has been observed a few days before death.

Post-mortem Appearances.—The liver is, as a rule, enormously enlarged, and presents the appearance of one in a high degree of fatty degeneration. It is usually pale yellow, but may be deep yellow; the acini are plainly perceptible and large; the substance is brittle and fatty; here and there ecchymoses beneath the capsule or along the course of the blood-vessels may be seen. . . . The reports and opinions of authors differ in regard to the appearances of the liver. Some of the authorities, at the head of whom stands Mannkopf, found, especially in those cases with commencing atrophy, proliferation of cells in the interstitial tissue, an increase of this tissue, and aggregations of nuclei. Others, among whom are Schultzen and Riess, never have seen such an active process in the interstitial tissue, but simply a fatty degeneration of the cells. Whether the changes taking place in the liver in Phosphorus-poisoning are essentially different from those in acute yellow atrophy of the liver or not, the experiments of Wegener are conclusive so far as the anatomical side of the question is concerned.

"Wegener found 'an interstitial hepatitis of the most marked degree. The result of this, when produced by the use of relatively large doses of Phosphorus continued for several months in rabbits, is always essentially the same; namely, an atrophy of three kinds, smooth induration of the organ, or a form of atrophy occasionally seen in man as the result of syphilis; a *hepar lobatum*

with numerous deep contractions, which produce a great deformity of the organ; or, finally, the typical granular atrophy, the classical cirrhosis of the liver. In all these cases, chronic icterus is present. If the atrophy is of the last-mentioned variety, there are found those regularly developed secondary affections which are familiar in human pathology; viz., venous hyperæmia of the stomach and intestines, indurative enlargement of the spleen,* etc.

"This complete description leaves no doubt about the fact, that, in cases of chronic poisoning by Phosphorus, the most exquisite proliferation of cells takes place in the interstitial tissue of the liver. This gives, therefore, the most important evidence in favor of the views of those who, with Mannkopf, consider the changes which take place in the liver in acute Phosphorus-poisoning and acute atrophy of the liver as identical.

"The almost constant appearance of jaundice depends upon the resorption of the bile; the simultaneous presence of a large amount of the biliary acids in the urine proves this. The hemorrhages appear to depend upon the fatty degeneration of the walls of the smaller blood-vessels."—*Ziemssen*.

"The elimination of bile acids in the urine shows that the jaundice of Phosphorus is caused, not by an arrest of secretion, but by an occlusion of the biliary passages and consequent resorption of the bile. Dr. O. Kohts has apparently demonstrated that the occlusion is most frequently due to the duodenitis involving the common duct, so as to obliterate its lumen by the swelling of the mucous membrane. In some cases, however, it is probable, as believed by Wyss, Alter, and Ebstein, that a catarrhal inflammation of the minute gall ducts is the cause of jaundice, and also that the result is in part affected through pressure upon those ducts by the swelling of the glandular and trabecular tissue. It is proper to state that Demarbaix and Willmart insist that the icterus is not really hepatogenous, but hæmic in origin, chiefly because they have found hæmatoidin in the urine. This fact, however, proves only that the blood is altered by the poison; it does not disprove the liver-origin of the jaundice."—*Dr. H. C. Wood*.

Kidneys.—"Of especial interest is the character of the urine eliminated. At first, there is no marked change in amount or density; later, it is diminished in amount during the last few days, even to the minimum (between three and four ounces). It usually contains a small, rarely a large, amount of albumen, frequently blood and so-called fibrinous casts, and, with the appear-

ance of jaundice, biliary pigments and acids. Leucin and tyrosin are rarely found in it; but paralactic acid is often detected in large amount, especially in fatal cases. Schultzen and Riess found that the urea almost completely disappeared upon the approach of death; and in its stead there appeared, even in cases ending in recovery, a peculiar nitrogenous 'extractive' material, which was, according to these authors, very similar to peptone. In experiments upon animals, this disappearance of urea could not be produced. The kidneys are very much enlarged and fatty."—*Ziemssen*.

Dr. R. Hughes says: "It may be thought that the affection of the kidneys is secondary to that of the liver, as in two of Frerich's best-described cases of acute atrophy, fatty degeneration was discovered in their glandular cells. I must mention, however, that there is one case on record in which there was no jaundice nor cerebral disturbance during life, although the liver was found (*post mortem*) enlarged and fatty. In this case, the urine during life was highly colored and frothy, its specific gravity increased, and it contained albumen and exudation cells. After death, the cortical substance of the kidneys was granular; the Malpighian corpuscles resembled red points; and, on a microscopical examination, the uriniferous tubuli were found blocked up by exudation matter. While I agree with Dr. Hempel that this is not Bright's disease, it is nevertheless a very decided nephritis, and warrants the expectation that Phosphorus may find a place in the treatment of the idiopathic affection. It should also obviously be given in primary fatty degeneration of the kidneys. The indication for it is strengthened by the fact, that, in one of Dr. G. Johnson's cases, this affection (which came on in three weeks' time) appeared to be the immediate result of sexual excess."

The microscopic examination of the kidneys shows decidedly fatty degeneration; the single urinary canaliculi full of large fatty drops.

Circulation.—Phosphorus produces the typical fatty heart and arteries. The microscopic examination of the muscles of the heart shows excessive fatty degeneration, and that they are full of a large quantity of fine brown granules.

"The muscular tissue of the heart is pale, and evenly colored of a light grayish-yellow, or in some cases (especially apparent beneath the endocardium), it is striped, or contains net-like tracings formed by light, wavy lines upon a grayish-red ground. The cardiac tissue is brittle, and appears fatty both to the touch and to the eye."—*Ziemssen*.

Buchner says: "Phosphorus is the very antipode of the versatile Arsenicum; Arsenicum affecting the left heart, Phosphorus the right one; or, in other words, Arsenic causes arterial stagnation, and Phosphorus, venous stagnation, with or without disturbance of the lesser circulation. The fatty degeneration of the heart is, according to Bamberger, a deposition of fatty granules in the primitive fibers, so that the whole muscular texture is lost, and the sarcolemma is filled up with closely standing fat-molecules. The heart becomes pale yellow, very friable, and can easily be torn. The extension of the fatty degeneration goes *pari passu* with the weakness of the heart."

According to Wegener and Klebs, the hemorrhages which occur in the course of Phosphorus-poisoning are due to a fatty degeneration of the arterial walls. Stokes says, that the pulse varies in frequency, sometimes being diminished to forty, sometimes being much accelerated; it is extremely feeble, and is early characterized by the failure of any difference between the first and second sounds; finally, the first sound disappears entirely.

"At the height of the poisoning, there is frequently a tendency to hemorrhage of various kinds; the vomiting of blood may be very copious, and with it there may be bloody stools; also bleeding at the nose, metrorrhagia, and often premature appearance of the menses. The hemorrhage into the skin and subcutaneous cellular tissue shows itself in the form of petechiæ and extensive ecchymoses. The hemorrhage from a simple leech bite or from cupping, can not be stopped."—*Ziemssen*.

Blood.—"The blood is often profoundly affected, becoming very dark, losing its power of coagulation, and apparently suffering also in its corpuscular elements; for ecchymoses are almost universal, and hæmatine crystals are occasionally found in the viscera. In the case of Concato, the white corpuscles were observed during life to be increased in number, and the red to be diminished in size and altered in form. The ecchymoses occur in all parts of the body, but are apt to be especially pronounced in the mediastinum and the serous membranes. Schiff has found, that, in dogs, after death from Phosphorus, the blood does not pass into the veins, but remains in the arteries; and Dr. Mayer states, that, when very large doses of the poison have been taken, the blood and even the urine may be phosphorescent."—*H. C. Wood*.

"Dr. W. Arnold, of Heidelberg, says: 'The changes occasioned by it in the blood, and through the blood in the whole organism, have been overlooked for a long time. In numerous

cases of poisoning by Phosphorus, the changes in the blood are too conspicuous to remain unnoticed any longer. The facts gained in this way were so often confirmed by numerous and oft-repeated experiments upon animals that now they are generally accepted. Almost all observers speaking upon this subject, describe the blood as being dark, even black, and of a fluid consistence. As a rule, it is thin, flowing, more rarely of molasses-like, or of more thick flowing, appearance. In a coagulated state, it has been observed so rarely and exceptionally, and then only in a few single parts of the body, that we are justified in assuming that the coagulation can not be taken as an effect of the Phosphorus, but is dependent upon other conditions. Upon the whole, the blood is more fluid if Phosphorus does not kill quickly, but has a chance to effect changes in the blood in consequence of a more lasting action for several days. These changes, however, frequently set in very rapidly, if Phosphorus has been taken in the form of a solution, as, for instance, in butter, fatty oils, or Ether.

“The results of microscopic investigations of the blood offer important disclosures. Phosphorus occasions an important change in the blood-disks; their decrease in consistency and circumference is very conspicuous. They become smaller, more extensive, and consequently can assume different forms; they change their form in many ways, especially in their passage through narrow vessels, and in their proportion to each other. One might say, almost, that Phosphorus acts as a dissolvent upon the blood-disks. This action touches the blood-cell membrane more than the nucleus. Greater luster, a less granular appearance, irregular and less distinctly defined outlines,—these are the most conspicuous changes of the blood-disks which can undoubtedly be ascribed to the direct action of Phosphorus. That these changes take place on account of immediate action, I have proved in this way: I let Phosphorus oil act upon the blood under the microscope, and thus I witnessed changes of the blood-disks, slighter in degree, it is true, yet entirely similar to those observed from the application of Phosphorus during life. In this way I was able to follow up the successive dissolution of the blood-disks. This dissolution was not as great as under the continued action of the Phosphorus in the living organism, and, undoubtedly, for the reason that not so intimate and lasting a contact with the blood took place.

“Besides several other observers, Rummel testifies to a change of the blood, perceptible under the microscope. He could not

find a single colored corpuscle, but only colorless disks, in the blood of a hen poisoned by Phosphorus; and Voit made the same observation on a dog, into whose vena cruralis he had injected Phosphorus. According to Rummel, the destruction of blood-disks is the most essential phenomenon when Phosphorus has been introduced into the stomach, as well as when directly mixed with the blood by means of injections. The blood-disks separate into hæmatine and globuline. The former floats as a purple coagulum in the plasma, or may, according to the conditions present, even be dissolved therein, while the form of the latter is still preserved. Another observation of Rummel is very worthy of notice for the explanation of hemorrhages after Phosphorus-poisoning. If a rabbit, into whose vena cruralis Phosphorus oil had been injected, was held head downward, he soon saw red-colored plasma, which under the microscope was free from any blood-disks, flow from the nose. The blood in this dissolved state had pressed through the walls of the vessels. On opening a vessel, numerous well-preserved blood-disks could still be found.

“To judge from the hemorrhages and ecchymosis, so frequently, and, we may say, almost constantly, observed in Phosphorus-poisoning, and from the often-confirmed curative action of small doses of Phosphorus in morbus maculosus, many hemorrhagic changes in the blood must exist; and what are they? This question is partly answered by the observations of Friedreich. He noticed in a young man afflicted with hæmaturia, on whose lower extremities œdema, petechia, in short, an exanthema of an exquisitely hemorrhagic character, had made their appearance, that the blood-disks passing with the urine were essentially changed. They were normal as to form and size only in small numbers, but frequently very abundantly formed. Many of them were oblong-oval and presented compressions as from ligatures, and so much so, as even to assume the shape of baker-rolls. With others, a division into two uneven halves seemed to be taking place. Not a few had already separated themselves completely and were divided; and this went on until finally blood-disks of the most minute form—molecular blood-disks, so to say—were formed. This process of division could not only be understood from the results of microscopic examinations, but could also be observed directly. The whole left the impression, as if the blood-disks consisted in a semi-solid, almost oil-like substance, without any external membrane. Even in a case of sarcoma of the kidneys, *Friedreich* has repeatedly seen the above-described division of the red blood-disks into molecular forms. The red-

blood-disks of anæmic, hydræmic, leucæmic, marasmic and strumous individuals drawn by *Daman*, completely resemble a number of the forms presented by *Friedreich*.'

"This striking resemblance in the change of the blood, and especially of the blood-disks, after poisoning with Phosphorus, shows us why it is of such wonderful efficacy in the cure of hemorrhages."—*Therapeutics of Tuberculosis*, by *W. H. Burt*.

Cerebro-Spinal System.—Through the vegetative nervous system, Phosphorus has a powerful action upon the cerebro-spinal system. Dr. R. Hughes says:

"Before, however, we dwell upon the phenomena, let us speak of the stimulant properties of Phosphorus. This substance is one of those which enter into the normal composition of the body. It exists mainly in the nervous centers, in the form of a peculiar compound with fatty matter which has been named 'protagon;' just as Iron is united with hæmatin in the blood. It actually forms more than one per cent of the human brain, the amount gradually increasing from infancy to adult age, and then again decreasing in old age. Now, the analogy of Iron to Lime suggests, that, up to a certain point, Phosphorus may be a special stimulant to the tissue it goes to constitute, and, the stimulation being in some sort that of a food, it need not be followed by reactive depression.

"That Phosphorus has such an action on the nervous system—as Iron on the blood and (probably) Lime on the bones—is beyond doubt. 'About the second hour,' writes Mr. Thompson, 'after a dose of the twentieth or the twelfth of a grain, sensations of exhilaration begin to make themselves felt. The capacity for exertion, both mental and physical, is increased, and that condition which the French describe as one of *bien-etre* is experienced. If the subject has taken the dose while in the state of fatigue, he finds his strength renewed; if while in a state of despondency, he takes a more cheerful view of things. The pulse becomes firmer and a little more frequent. These effects pass off gradually in the course of a few hours, and a state of depression does not ensue.' With this, there is often increase of temperature, perspiration and diuresis, and sometimes venereal excitement.

"It is this action of Phosphorus which made it available, given in full and frequent doses, in typhoid depression, and often rallied a patient from an apparently hopeless condition. It is a property of the drug which we may well employ, understanding clearly what it is,—that we are giving it as we give alcoholic stimulants,

and not as a medicine. After the same fashion it may be used, if it is needed, instead of a glass of wine, for temporary exhaustion; remembering, however, that rest and food—if there is time for them—are far better remedies. But there is another application of the stimulant power of Phosphorus, which has of late attracted much attention; viz., the relief and even cure of neuralgia obtained therefrom. Phosphorus causes and cures, in minute doses, its own form of neuralgia; but this is rarely met with in comparison with that which requires Arsenicum, Belladonna, Colocynth, and Sulphur. The drug has hence occupied no prominent place in Homœopathic therapeutics as an anti-neuralgic remedy; but we have known how to use it when required. A cure of the intercostal form, wrought by one of us with it after long-continued unsuccessful treatment by an old-school practitioner, called the attention of the latter to the remedy; and he and others tested it in various instances of the affection, and reported favorably of their results. It is here that Mr. Ashburton Thompson came upon the field. He treated some fifty cases with the medicine, with a success which leads him to regard it as an almost infallible remedy for pure neuralgia, wherever occurring, and as rapid in its action as it is lasting. But to obtain such result, he says, the medicine must be given in a full, i. e., stimulant dose, not less, indeed, than a twelfth of a grain every four hours. Thus, its *modus operandi* seems to be that of food and wine, whose influence over neuralgic pain is so well known; only that its relation to nervous tissue gives it stimulant and perhaps nutritive qualities of a special kind. I think that medicine is much indebted to Mr. Thompson for working out this subject, as well as for his valuable contributions to the pharmacy and posology of the drug. We have, in most cases, remedies for neuralgia of a more satisfactory kind; but, were we at a *non plus*, we might do worse than follow his practice.

“But it is with Phosphorus as a neurotic as with Iron as an hæmatic; if too long continued, or taken in excess, it acts as a poison to the very tissues which it stimulates and feeds. Iron can in this way impoverish the blood, causing anæmia; and Phosphorus still more surely impairs the vitality of the nervous centers, and gives rise to paralysis. Even in acute poisoning, there are often symptoms of nervous depression, as in the third case of Dr. Holcombe’s series; and, among those given by Dr. Hempel, in one there was numbness of the extremities, with formication—the fingers having so little sensibility that they could not pick up a pin, and in another there was amaurosis with widely

dilated pupils, and deafness. In an excellent study of 'Phosphoric Paralysis' by Dr. Gallavardin, of Lyons, translated from *L'Art Medicaire*, in the twentieth volume of the *British Journal of Homœopathy*, two cases are given, in one of which the left arm, in the other the hands, became powerless. But the most striking instance of the kind presented by him is one in which, life being prolonged, there was progressive paralysis. It is cited from Huss' 'Chronic Alcoholism,' as follows:

"A man, æt. 39, who led an ordinary kind of life, occupied himself for three years in the preparation of Phosphoric matches. He used to work in the room where he lived, and there he kept the materials and product of his trade. He had suffered no inconvenience from it until a year ago, when a great quantity of Phosphorus and phosphorated matches took fire, after a violent explosion. At the time, while trying to extinguish the conflagration, he so thoroughly respired the vapor of Phosphorus, that at last he fainted from suffocation. Immediately after this, he experienced a sensation of weakness in the back, as if he were ready to sink; then weakness in the extremities, and trembling at every effort; creeping under the skin, and a sensation as if something were starting under the epidermis. At first, there was great sexual excitement, which afterward diminished, and for the last six months gave place to impotence, with absolute impossibility of erection."

"Independent of that, he found himself well, with good appetite, regular evacuations, good health, normal respiration. Nothing indicated any affection of the brain. On his admission to the hospital, the following symptoms were remarked: His two legs were so weak he could only walk a few steps, and even then with a tottering gait, and as if he were not sure of himself; if he tried to stand upright, his legs trembled and his knees bent; his hands and arms trembled on making an effort. In the state of repose, the muscles started out all over the body, especially in the extremities. *They seemed to be twitching to and fro, though painlessly; different muscles or bundles of muscles twitched at different periods. At times, the twitching stopped; but it was easily excited by contact.* On the left arm, a constant feeling of formication under the skin; normal sensation over the general surface of the body. The spine not sensitive, nor painful, but so weak that the patient can not straighten himself, nor remain standing when once straightened. The faculties, both intellectual and moral, the functions of the heart, of the chest, and of the digestive organs, normal; but the pronunciation embarrassed (paralysis of

the tongue?). The patient lived three or four years in the full enjoyment of his senses, while the paralysis increased and extended; but all the attempts at treatment were unavailing.'

"Dr. Gallavardin also mentions the experiments on animals of Mayer. The conclusions of this observer are: 'Phosphorus acts specifically on the nerves of voluntary motion, and on the muscles themselves. It impedes, diminishes, and at last entirely destroys, the power of movement; or, rather, it destroys the irritability of the motor nerves and the contractility of the muscular fibers, and at last completely paralyzes the powers.' He adds, that it also 'acts specifically on the nerves of sensation, destroying sensibility from the periphery to the brain, the sensorium being in a small degree disturbed.'

"To all this corresponds the condition of the nervous centers commonly found in animals poisoned by it, as you may read in Sørge's treatise. This is nearly always described as 'pale, soft, and bloodless.'

"It follows that Phosphorus is truly homœopathic to paralytic conditions, when dependent on lowered vitality or even softening of the centers, and should be a valuable remedy therein. Dr. Gallavardin cites thirteen cases of the kind, and Dr. Trink one. They were nearly all of a functional nature,—from amenorrhœa, seminal losses, exhaustion from acute disease, and such like causes. In one case, the loss of power involved only the third, in another only the sixth, pair of cranial nerves. In softening of the brain from exhaustion, Phosphorus is acquiring quite a reputation in the old school; but it has long been in use for it in our school. The muscular symptoms of the case I have narrated, suggest the 'fibrillary contractions' of 'wasting palsy,' the 'progressive muscular paralysis' (Duchenne). With Phosphorus, indeed, we should not expect wasting of the muscles, but simply their fatty degeneration; and a form of the disease has been described by Duchenne, which he calls 'pseudo-hypertrophic paralysis,' in which this very condition obtains."

Sexual Organs, Male.—Phosphorus has a special and profound action upon the sexual organs of both sexes. "The sexual organs share in the general excitement caused by moderate doses of Phosphorus; but they manifest its influence in so marked a manner as to evidence a special action of the drug upon them, or upon that part of the nervous center whence they derive their energy. That Phosphorus is an aphrodisiac, has been known for a long time. It has displayed this property in a most unmistak-

able manner among the lower animals. Leroy (quoted by Pereira) ascertained that it was aphrodisiac to drakes. In Dr. Sorge's experiments, cocks, pigeons, dogs, and frogs were affected in the same way; the latter got those large growths on their forefeet that appear during their pairing season, and used them accordingly. But the same prover's experiments on the human subject show that this excitement is but temporary, and is followed by a much longer continued depression, as we see in Dr. Gallavardin's case just cited, showing itself in absence of desire, imperfect erections, with too rapid ejaculatio seminis, and frequent involuntary emissions.

"Phosphorus is thus a thoroughly Homœopathic remedy for that irritable weakness of the male sexual organs which is left behind by excesses in venery and by masturbation. Experience has over and over again confirmed the indication of theory in this matter. Phosphorus would also (in very small doses) be Homœopathic to satyriasis, which corresponds to its primary effects; for this, Jahr recommends it from experience. Might it not also be desirable to use it occasionally as a special stimulant, in full doses, as in impotentia senilis, when offspring is much desired? The following observation from Dr. Sorge's collection, shows that great caution must be exercised here: 'An old dog that had long lost his sexual power, after taking Phosphorus rat-poison that was given to kill him, became sexually excited, and died in the act of coition.'"—Hughes.

Sexual Organs, Female.—Large doses of Phosphorus produce, in many women, a bloody, pseudo-menstrual discharge, and, if taken during pregnancy, it almost invariably produces abortion or miscarriage. Menstruation is too early and too scanty. Where sinuses have been left in the *mammæ* after extensive suppuration, followed by chronic mastitis, Phosphorus has been found of great value.

Bones.—Phosphorus has a specific and most wonderful action upon the lower jaw and teeth, producing complete necrosis of the parts. "This develops in from six months to many years after the workman has commenced the dangerous employment; occasionally the first symptoms are not observed until after the patient has ceased working with Phosphorus. The disease occurs in the lower jaw most frequently and most severely; in the upper jaw rarely and in a milder form.

"Yet the most extensive necrosis of the upper jaw has been observed; even cases are known in which the disease has ex-

tended to the cranial bones, and death from meningitis followed.

"The disease almost always begins in carious teeth or gaps between the teeth, and almost never exists in persons with sound teeth. It develops into, and runs the course of, a chronic periostitis, and leads to extensive necrosis of the lower jaw. In the milder cases, the disease is limited to the alveolar process; then, after the spontaneous expulsion or the extraction of the necrosed portions, recovery takes place. In the severe cases, necrosis of the greater part or the whole of the jaw results, yet recovery may ensue even in these cases. The occurrence of abundant osteophyte formations on the affected bones has long been recognized as the anatomical peculiarity of the disease.

"Wegener showed that it is easy to produce in animals the peculiar periostitis of the lower jaw, which leads to necrosis, by exposing them for several weeks to the action of Phosphorus vapor. This evidently acts as a local irritant upon the periosteum, acting more readily in those where opportunity is given for the attack of the vapor by decayed or previously wounded teeth.

"Wegener showed also, that Phosphorus, taken in the form of vapor, by inhalation, or internally in the smallest doses, acts 'as a specific formative excitant to the osteogenetic tissue,' and, under otherwise normal conditions, leads to a considerably increased development of the compact tissue in the long bones. These results are shown most plainly in young animals while still growing. In them, it happens that not rarely all of the spongy tissue is crowded out and its place filled with compact tissue. Wegener has succeeded in producing in hens a complete closure of the medullary cavity by compact bone tissue. Phosphorus, in minute doses, in all probability, is dissolved in the blood, and, circulating with it, operates on the osteogenetic tissue as a specific plastic irritant. Brought topically, in the form of vapor, into contact with denuded periosteum, in moderate concentration, it provokes ossifying periostitis; while, if the fumes operate very energetically, the irritation becomes so intense that suppuration is added to the ossificatory process."—*Ziemssen*.

"The natural application of this power of Phosphorus would be to further bone-production in cases where it was defective, as in osteo-malacia and rachitis, or where it was needed in temporary excess, as in fractures, intra-periosteal resections, and transplantations of this membrane. In the latter field, Dr. Wegener has no doubt of its beneficial operation; and, within certain limits, the process is a physiological one. In osteo-malacia and rachitis, he can report no decided results; and, indeed, in both

the condition is too complex for help to be expected from simple increase in osteogenetic activity. He makes a remark, however, regarding the latter disease, which is very suggestive to us: 'Under the simultaneous influence,' he says, 'of feeding with Phosphorus, and of the deprivation of the inorganic substances, especially of Lime, the mode of growth of bones is altered so as exactly to correspond to what we are accustomed to call rachitis.' He then describes the result of such an experiment, ending: 'The conditions under which this artificial rachitis arises are a not unwelcome confirmation of the theory which an exact observation of the process has already set up; viz., that rachitis is conditioned by two factors; first, an insufficient quantity of inorganic salts in the blood, either from insufficient ingestion of the same, or from their excessive elimination; secondly, a constitutional irritation influencing the osteogenetic tissue.' For us, of course, the inference is that we should use Phosphorus as a medicinal agent here; and, indeed, Phosphoric acid already holds a high place in the Homœopathic therapeutics of the disease. Other applications in this direction of the osseous influence of Phosphorus are obvious. Kafka reports it to be a most efficacious medicine, in conjunction with *Natrum muriaticum*, in interstitial disease of the vertebræ and of the cancellous structure of bones in general. I was myself led to its use in cases where the irritation of a carious tooth was causing frequent gum boils, and incipient disease of the maxilla, and where for some reason or other we were debarred from extraction of the offending member. Here I found it most efficacious. Dr. Bayes, also, praises it highly in many affections of the teeth and gums. I may mention that gingivitis, with looseness of the teeth, has been observed, not only in acute poisoning by Phosphorus, where it might be secondary to blood-changes, but from its medicinal use."—*Dr. R. Hughes.*

Lungs.—Upon the respiratory organs, Phosphorus has a special action. "On the respiratory organs, Phosphorus acts as a pure irritant. I would not lay too much stress on the bronchitis, emphysema, pneumonia, and pulmonary phthisis observed in workmen and rabbits exposed to its fumes, as these may be but local effects. They are accompanied, however, with the weakness, emaciation, and hectic, which characterize the gastrointestinal effects of the drug. But Magendie and others have found hepatization of the lungs in animals poisoned by it, and the provers experienced decided symptoms of laryngo-tracheal and bronchial irritation, and of pulmonary congestion.

"Phosphorus occupies a high place in the Homœopathic therapeutics of respiratory affections; and pneumonia is the disease in which it has won its spurs. First introduced by Dr. Fleischmann of Vienna, his great success with it has led to its general use throughout the Homœopathic body. Dr. Cl. Muller and Dr. Baehr have given indications for the preference of Phosphorus to Tartar emetic in this disease. They concur in recommending it especially when pneumonia threatens to deviate from its normal course, and when 'nervous' (i. e., typhoid) symptoms appear. Dr. Baehr thinks it also the prime remedy in œdema pulmonum. I am myself disposed to prefer it to any other medicine in all the stages of pneumonia simplex, and in the pneumonia of typhus. Bryonia is probably superior in pleuro-pneumonia; and in broncho-pneumonia, Tartar emetic contends with it for precedence; though, in this malady occurring in children, Phosphorus has always given me the utmost satisfaction. In fact, in these subjects, bronchitis is so apt to run on to pneumonia, that I always employ Phosphorus, after Aconite, in its treatment, in preference to any other bronchial medicine."—*Dr. R. Hughes.*

Action.—"What is the *rationale*? I would answer in the first place, that the fundamental lesion is an acute fatty degeneration, which Phosphorus has the power of causing in every part of the body susceptible thereof. In the second place, I would refer the neurotic and hæmatic phenomena to the suspension of the functions of the liver and kidneys, owing to the metamorphosis of their secreting cells. I attach most importance to the affection of the liver. Although the cerebral symptoms resemble those of uræmia so far that they suggest the retention of a similarly hurtful excretion in the blood, they could hardly be mistaken for them. Combined with the petechiæ and hemorrhages, they present a morbid condition only present elsewhere in what Frerichs calls 'acholia,' i. e., a suspension of the functions of the liver, owing to a destruction of its secreting cells. The most prominent instance of this lesion is acute atrophy of the liver; but it also occurs occasionally in the course of cirrhosis, obstructive jaundice, and other chronic hepatic affections. The symptoms are those of blood-poisoning, to which the nervous phenomena are probably secondary. I do not want to wander too far into pathology, but I must call your attention to the very interesting speculations on the subject of Dr. Austin Flint, of New York. His theory is that cholesterine is the excrementitious material of the bile as urea is of the urine, and that the blood-poisoning of acholia is accordingly a cholesteræmia."—*Dr. R. Hughes.*

"W. Dybkowsky renders probable the theory of Schuchardt, that the Phosphorus, to some extent in the alimentary canal, but much more largely in the veins, is converted into Phosphureted hydrogen, and that some of this compound and some of the Phosphorus itself is oxidized in the venous blood, so that Phosphoric acid, besides Phosphorus and Phosphureted hydrogen, is emptied into the arterial blood; further, that the last two compounds are oxidized at the expense of the arterial blood and the tissues it feeds, and that the poisoning is due to this deprivation of oxygen."—*Dr. H. C. Wood.*

Therapeutic Individuality.

General Indications.—Tall, slender people, with fair skin, sanguine temperament, sensitive disposition, quick and lively perceptions. It is especially suited to fevers where death seems inevitable in consequence of the deep seated injury inflicted upon the vital forces; and to acute, sub-acute, and chronic diseases of the brain, jaws, teeth, lungs, stomach, intestines, liver, kidneys, sexual organs, and blood.

Sensation of weakness and emptiness in the abdomen; this distresses and aggravates all the other symptoms; and it is the ruling key for the use of Phosphorus, and probably depends on portal congestion; a step further is shown by jaundice from fatty degeneration of the liver.

Mind.—Sadness and anxiety, regularly recurring at twilight, from nervous exhaustion.

"Mental depression, and a most uncommon fearfulness or timidity, with a great sense of fatigue."—*W. H. Holcombe, M. D.*

"Great apathy, answers slowly; moves sluggishly."—*Mueller.*

"Weary of life; melancholy, full of gloomy forebodings."—*Hah.*

Sadness, depression, with forebodings of calamity; the melancholy is relieved by weeping; from nervous exhaustion of the cerebro-spinal system, caused by sexual excesses.

Stupor; low, muttering delirium, grasping at flocks (typhoid).

"Lay most of the time in a stupor, from which he could be roused, however, for an instant, only to lapse back into a low, muttering lethargy."—*Morse.* [Low typhoids.]

"The head is dizzy, heavy, and painful, as if he had been lying at night with the head too low."—*Hah.*

"Could not study or keep his mind on any particular subject long at a time."—*Dr. H. N. Martin.* [From excessive venery.]

Irritable and nervous ; believes he will die ; from sexual excess.

Head.—"Vertigo in the morning, constantly increasing, like a heavy pressing downward of the forehead."—*Hah.*

"Vertigo ; he was obliged to lie down for several days ; because, on making an effort to rise, the vertigo returned."—*Dr. Goullon.*

"Vertigo ; staggers while walking ; after rising from bed, or from seat ; worse mornings."—*Hah.* [From softening of brain.]

"Great weakness of the head so that she could not endure any sound of the piano."—*Hah.* [From sexual exhaustion.]

"Vertigo with great rush of blood to the head."—*Hah.*

"Very heavy, dull feeling in the head, after eating, with vertigo, obliging him to lie down."—*Hah.* [From indigestion.]

Sense of exhaustion and bewilderment in the brain, with vertigo and disposition to fall down ; better in cool air.

"Hemicrania ; the forehead or occiput is swollen ; touching the swollen part causes the most excruciating pain."—*Hg.*

Clairvoyance ; laughing against the will ; very sleepy during menstruation, and after eating (from indigestion).

"Fearfulness, as if something were creeping out at every corner."—*G.*

"The pains of the head are of great variety, and affect equally all parts of the head, but seem to affect the surface of the brain or the bones of the skull the most."—*D.*

"The headache generally occurs in the evening ; sometimes on waking in the morning ; aggravated by warmth and excitement ; relieved by repose, cold, and open air."—*D.*

Shocks in the occiput, or all parts of the head ; epilepsy.

"Softening of the brain, with persistent headache, slow answering questions, vertigo, feet drag, formication, numbness in the limbs."—*Hg.* [From sexual exhaustion.]

"Scaly, bald spots on the head."—*Hg.* [Loss of hair.]

"Dandruff copious, falls out in clouds ; roots of hair get gray, and hair comes out in bunches."—*Hg.*

Ears.—Difficulty of hearing, especially of the human voice ; sounds re-echo in the ears ; inflammation of the internal ear.

"Roaring in the ears" (Deitz), from congestion of the head.

Eyes.—"Its great sphere of action is found in diseases of the fundus, especially in disturbance of the function of the optic nerve, though its action upon the muscles of the eye can not be ignored."—*A. and N.*

"Paralysis of the muscles, particularly if accompanied by spermatorrhœa or sexual abuse."—*A. and N.*

In both hyperæmia and inflammation of the retina; the balls sore on motion, with photopsies or chromatopsies; and rapidly increasing myopia; fatty degeneration.

"Mistiness before the vision; vanishing of sight; eyes very weak, seem large, and difficult to get lids over them."—*A. and N.*

In amaurosis consequent upon sexual excess, Phosphorus has made many brilliant cures, especially if associated with fatty liver.

"Black floating points before the eyes."—*Hah.*

"A green halo about the candlelight, in the evening."—*Hah.*

"He sees more distinctly in the morning, in twilight than during the day, or by shading the eyes with the hand."—*Hah.*

Distant objects appear to be covered with a mist; chromatopsia.

Yellow jaundice of the conjunctiva; in fatty liver.

Cataract. Phosphorus has arrested its progress in well-marked cases.

"For cataract, Phosphorus oil is rubbed upon the forehead and dropped into the eye; and the induration of the lens, or its capsule, is softened or absorbed."—*Dr. Tarignol.*

Nose.—"Swelling of the nose, painful to touch."—*Hah.*

"Soreness of the Schneiderian and mucous membranes, with bloody scabs on the margin of the nostrils."—*G. Mueller.*

"Ulcerated nostrils, with swollen nasal bones."—*Hah.*

"Nose swollen, dry, can not draw air though it."—*Lilienthal.*

"Internal inflammation of the nose; dry sensation, and slow bleeding of the nose."—*Hah.* [Chronic nasal catarrh.]

Profuse and long-lasting nosebleed.

Polypus of the nose; bleeding easily; fatty arteries.

Frequent sneezing, with dry nasal coryza; chronic catarrh.

Headache with over-sensitive smell, especially in females.

Face.—Face pale, sickly and sunken; lids œdematous.

"Face sunken, earthy; eyes sunken, surrounded by deep blue rings."—*Hah.*

Icteric color of the face, with much prostration.

Face pale, swollen, and œdematous, with great weakness.

Lips parched, face swollen and œdematous.

Yellow, icteric color of the face, from fatty liver.

"Neuralgia of head, it has to be wrapped up night and day."—*G.*

"Prosopalgia, aggravated by opening the mouth, especially if there is congestion of blood to the head."—*Jahr.*

"Shooting pains from left eye to vertex."—*H. V. Miller.*

Necrosis of the lower jaw, rarely of the upper, but does produce it on both, with great swelling, and œdema.

Mouth.—Bleeding and inflammation of the gums.

Tongue swollen, dry and black ; or dry and red ; or brown, and dry in the middle ; yellow or white. (Septic fevers.)

Dryness of the mouth ; or bloody erosions of the lips.

Very difficult deglutition, with slow speech.

Gums bleed easily ; separated from the teeth and very sensitive.

Bitter or sour taste, from chronic dyspepsia.

Throat.—Dryness of the throat day and night.

"Roughness of the throat, worse evenings."—*Hah.*

"Dryness of the pharynx and fauces."—*Hah.*

"Cures the longing of inebriates for alcohol, by removing the irritation of stomach which causes morbid appetite."—*Lilienthal.*

Stomach.—Thirst, mouth dry, with great tympanitis of the stomach ; gastric and bilious fevers.

"The food rises back again into the mouth after having been scarcely introduced into the stomach."—*Hah.*

"Gastric neurosis, with dry, hard, beaded stool, every three or four days."—*Dr. F. Percussel.* [Gastro-enteritis.]

"Ravenous hunger at night, or complete loss of appetite."—*Hah.*

"Great longing for acids and spicy things."—*Dr. Holcombe.*

Excessive and unquenchable thirst, in gastric fever.

"Frequent or violent eructations, tasting of the food."—*Hah.*

"Frequent empty eructations, or ineffectual eructations.

"Nausea, which soon disappears after taking water."—*Sorge.*

"Frequent nausea and vomiting of everything that he ate."—*Lilienthal.*

"As soon as the water becomes warm in the stomach it is thrown up."—*Hg.*

Vomiting of food and mucus mixed with bile and blood.

"Vomiting of dark filamentous substances, consisting of blood mingled with bile and mucus."—*Dr. Gallard.* [Yellow fever.]

"Vomiting of dark acid matter, always mixed with some blood ; hæmatemesis for seven days."—*Dr. Richardson.*

Violent bilious vomiting, in yellow and bilious fevers.

"Epigastric region greatly distended and painful ; it is full unto bursting."—*Hah.* [In low septic fevers.]

"Violent pain in the stomach, gradually spreading over the whole abdomen, with vomiting first of green, afterward of blackish substances."—*Dr. LeRoy.* [Yellow fever.]

"Epigastrium became exceedingly painful to pressure, with enlargement of the liver."—*Dr. Schultz.*

"Pressure as from a hard substance, above the pit of the stomach, with coldness."—*G.* [Chronic dyspepsia.]

"Pressure in the stomach after eating as if a heavy weight were in it."—*Hartlaub.* [Chronic indigestion.]

"Sensitiveness to pressure in the region of the pylorus."—*Dr. Karagan.*

Oppression and burning in epigastrium, with spasmodic gnawing pains in the stomach, with intermittent pulse.

Goneness in the region of the stomach; portal congestion.

"Is not able to drink water, even the sight of it causes nausea and vomiting; must close her eyes when bathing."—*Mary Howell.*

"Is hungry during the headache, which comes on once a week about noon, affecting eye and occiput."—*H. V. Miller.*

Drawing pain in the stomach, extending into the chest, with oppression of breathing, and palpitation of the heart; the pulse intermitting every few beats; chronic dyspepsia. (Excellent.)

In dyspepsia, where there is excessive flatulency, with frequent palpitation and intermittent pulse, accompanied with much despondency, I have seen grand results from Phosphorus.

Abdomen.—The ruling key here, and one that aggravates most all the other symptoms, is a *sensation of great weakness and emptiness in the abdomen.*

"Sharp cutting pains in the bowels, sometimes with sour vomiting."—*G.* [Accompanied with excessive flatulence.]

"Belching large quantities of wind after eating."—*G.*

Excessive accumulation of flatulence in the abdomen.

"Incarceration of flatus beneath the ribs, with oppression of the chest and loud rumbling in the abdomen."—*Hah.*

"Emptiness and feeling of weakness in the abdomen."—*Hah.*

Liver indurated and very much enlarged, with icterus.

Fatty degeneration of the liver, with malignant jaundice, and a weak, gone sensation in the abdomen, with stitches in the liver, and petechiæ; great debility.

"Jaundice; it has been found capable of setting up the catarrhal inflammation of the bile ducts which is so frequently the cause of this disorder. In jaundice from nervous excitement, moreover, it may be the best medicine to give; as this is every now and then (especially in pregnant women) the beginning of acute atrophy of the liver."—*Hughes.*

Stool.—"Stools are long, narrow, hard, and very difficult to expel."—*G.* [Chronic indigestion.]

"Constipation; the fæces being slender, long, narrow, dry, tough, and hard like a dog's, voided with great difficulty."—*Hg.*

"Profuse (exhausting) watery diarrhœa, pouring away as if from a hydrant."—*Raue.* [Asiatic cholera.]

"Chronic painless diarrhœa of undigested food, with much thirst for water during the night."—*R. Hughes.*

Watery diarrhœa in the morning; grains like tallow in the rice-water evacuations, always worse in warm weather.

"Green and bloody passages; the anus remaining wide open."—*Dr. W. H. Holcombe.* [The gaping of the anus in dysentery and diarrhœa is very characteristic of Phosphorus.]

Mucous stools, the anus remaining wide open.

"Diarrhœa; stools involuntary; gray or whitish gray; bloody; green; watery, with flakes of mucus and clots of blood; watery, with whitish yellow and cheesy masses, copious like water from a hydrant."—*Hah.* [Very exhausting.]

Involuntary stools when coughing, or during low fevers.

Stools of pure blood, or blood and mucus; involuntary.

The moment anything enters the rectum, it produces involuntary stools.

"Hot, involuntary stools; discharged with force; worse mornings, from lying on the left side, and warm food; relieved by cold food, ice-cream, and after sleep."—*J. B. Bell.*

"Violent burning in anus and rectum, with great exhaustion after stool."—*Hah.* [Stools copious and watery.]

"Needle-like stitches in the rectum, when not at stool."—*Hah.*

Hæmorrhoids protrude largely, are very painful, burn like fire from inflammation, and bleed profusely.

Urinary Organs.—Thick, turbid, and scanty urine.

"Urine filled with albumen and exudation-cells."—*Hempel.*

"Hæmaturia, discharge of blood from the bladder."—*Goullon.*

Phosphorus has made many brilliant cures of hæmaturia, with much pain in the renal region, especially after sexual excess.

"Urine bloody and largely albuminous."—*Hirschel.*

Urine turbid and very high colored; fatty kidney.

"The urine deposits a white, cloudy sediment."—*Hah.*

"Urine brown, with red, sandy sediment."—*Hah.*

"Albumen and exudation cells in urine, morbus Brightii."—*Hg.*

"Profuse, pale, watery; frequent; scanty; turbid; whitish like curdled milk, with brick-dust sediment."—*Hg.*

"Glycosuria, with phthisis."—*Hg.*

"Twitching and burning in the urethra, with frequent desire to urinate."—*Hg.*

"Burning in the urethra, with desire to urinate."—*Hah.*

Sexual Organs, Male.—Nocturnal emissions without dreams. Irresistible desire for sexual intercourse in both sexes.

"Impotence from sexual abuse."—*Hempel.* [Atrophy.]

Discharge of prostatic juice during hard stool.

Sexual abuse, producing dorsal consumption, trembling, imbecility, mania; epileptic fits, and impaired digestion.

Sexual mania, lascivious, strips himself naked; constantly tormented for coitus; followed by complete impotence.

Seminal emissions nearly every night, with great prostration, and burning, aching distress in the lumbar region; paralysis.

Sexual Organs, Female.—Menses too early and too scanty, from two to eight days.

"Hemorrhages from the genital organs; hyperæmia of the sexual organs; the parietes of the vessels are lowered in their power of resistance by the fatty metamorphosis, and the hemorrhages become more severe, often so severe that general anæmia is a consequence."—*Wegener.* [With chronic indigestion.]

"Menses pale, violent colic, nausea and diarrhœa."—*Breyton.*

"Acrid leucorrhœa, causing soreness of the vulva."—*Hah.*

"Amenorrhœa, with blood-spitting, or hemorrhage from nose, anus, or urethra."—*Hah.* [In greatly emaciated people.]

"Frequent and profuse metrorrhagia, pouring out freely, and then ceasing for a short time; cancer uteri."—*Hg.*

"Sterility from excessive voluptuousness; late and profuse menses."—*Hg.*

"Stitches upward from vagina, into pelvis."—*Hg.*

Aversion to coition, with sterility; weak, emaciated people.

"Ulceration of the mammæ, with hardness; red spots or streaks; fistulous openings, with burning, stinging, and watery, offensive discharge."—*Hg.*

"Cancer of mammæ; sharp lancinating pains; bleeding easily."—*Hg.*

Respiratory Organs.—Great rawness in the larynx, with frequent dry, hacking cough; bronchitis.

Rough, husky, hoarse voice; aphonia, unable to speak loud.

"Hoarseness, with a rough voice for several days; answers questions with great difficulty."—*Hah.*

Irritability of the lower portion of the trachea, with suffocative pressure in the lower part of the chest.

Feeling of suffocation after waking at night.

"Fluent coryza, with cough which is worse before midnight, with hoarseness, soreness and burning in the chest."—*Hg.*

Hoarseness with loss of voice, worse in the evening; can not talk on account of pain in the larynx.

Nostrils filled with green mucus.

Tightness across the chest, with a dry, tight cough; in pneumonia, rusty sputa, or first stages of phthisis.

Acute pain in the lower part of the left lung; greatly aggravated by lying on the left side.

"Sensation as if cotton was in the throat, with dryness of the throat day and night."—*Dr. A. K. Hills.*

"Dry, tickling cough in the evening, with tightness across the chest; expectoration in the morning."—*Hg.*

"Cough worse coming from a warm room into cold air."—*Hg.*

Capillary bronchitis; severe, hard, dry, exhausting cough, worse in the evening.

Tearing, irritating cough, with expectoration of mucus, pus, and blood.

Pneumonia, with sanguineous infiltration of the parenchyma, and red hepatization: face livid; brick-dust expectoration.

"Sputa of a dirty appearance, resembling pus, but thinner, and, when falling on a hard surface, will break and fly like thin batter."—*Dr. C. Pearson.*

"Especially when there is sensitiveness and dryness of the larynx, with a feeling as if it was lined with fur, and inability to utter a word, every effort to do so being painful; nervous exhaustion; suspected atrophy of the nerve tissue."—*Wm. H. Holcombe.*

Pneumonia. Phosphorus occupies a high place in the treatment of this disease, especially if it take on a typhoid form.

"Violent pneumonia with sticking pains in the chest, excited or aggravated by coughing or breathing; also in pleuro-pneumonia, when they are violent, and extend over a large surface, with dyspnœa, dry cough, and the sputa *rust colored*."—*Dr. T. Nichol.*

"Pulmonary phthisis. It is of great service in many ways in this disease. It keeps down the hyperæmia of the lungs, quiets the cough, and often moderates the diarrhœa. It may thus be actually curative in severe scrofulous pneumonia. I am, however, unable to credit it with any power of modifying the true tubercular dyscrasia."—*Hughes.*

"In pneumonia, it always remains our sheet-anchor; and it prevents, in croup, paralysis and narcosis through the carbonized blood."—*Dr. Hirschel*

"Cough, with difficult respiration, and violent bronchitis; soft pulse; great prostration, and emaciation."—*Dr. S. J. Lorinser.*

"Hæmoptysis, expectoration of blood and mucus, with dry cough."—*Hah.*

"Expectoration of blood, with fatiguing hacking cough."—*Hah.*

Hæmoptysis with occasional attacks of profuse hemorrhage.

"Profuse hemorrhages; pouring out freely, then ceasing for some time."—*Raue.* [This I have confirmed. I have cured many obstinate cases of hemorrhage from the lungs with Phosphorus.]

"Slight wounds bleed much."—*Hah.* [Very characteristic.]

"Respiration always very short after coughing; tightness of breath after the slightest food."—*Hah.* [Much flatulency.]

"Breathing short, and attended by a violent pressive kind of pain in upper part of sternum."—*Hah.* [Flatulency.]

"Mucous rales in both lungs, but more noticeable in the lower lobes, he could breathe only with a loud rattling noise."—*Hah.*

"Respiration very labored, anxious, panting, oppressed, with elevation of the whole thorax, especially of left side."—*Gendrin.*

"Respiration difficult, impeded by rapid walking."—*Hah.*

"Great dyspnœa; sense of suffocation and prostration."—*Dietz.*

Hectic fever; the lungs become rapidly involved, with suppuration; formation of cavities, and purulent exudation into the cavity of the thorax, with infiltration, and ulceration of the intestinal canal, and hypertrophy of the mesenteric glands; tubercular ulceration of the intestinal cavity, with chronic diarrhœa.

"Rush of blood to the chest, oppression so great that the patient, during the attack of cough and in order to expectorate, must sit up in bed, with great pain, and constrictive sensation under the sternum."—*Hah.* [Flatulency.]

"Distressing anxiety and pressure in the chest, amounting to suffocation, with burning, sticking pains behind sternum."—*Hah.*

"Heaviness of chest as if a weight were lying upon it."—*Hah.*

Severe congestion of the chest, with anxiety and oppression.

Heart.—"Anxiety about the heart, associated with nausea and a peculiar sensation of hunger, somewhat relieved by eating, distressing her, even in bed, for hours."—*Miss S.*

"Palpitation and anxiety in the evening, and morning on waking."—*Hah.*

Violent palpitation of the heart on slight motion.

"Marked bellows murmur with first sound of heart."—*Ozanam.*

"Peculiar blowing sound, synchronous with the systole of the heart, over the arch of the aorta."—*Dr. Karajan.*

Pulse rapid, weak, and soft, or intermittent from dyspepsia.

In fatty degeneration of the heart, Drs. Bayes and Hughes have seen undoubted evidence of its power of arresting the progress of the disease in the cardiac substance. "Acute fatty degeneration of the heart is apt to occur in typhus, and the same process is thought by many to constitute atheroma of the arteries, and mollities ossium; to be a cause of softening of the brain and cord; and, occurring in the bronchial tubes, to predispose to emphysema."—*Hughes*.

Skin.—Jaundice, from acute atrophy of the liver.

Petechial spots in the skin, similar to purpura hæmorrhagica.

Spots of ecchymosis over the skin, in purpura. (Excellent.)

"Lips and eyelids become œdematous."—*Bibra*.

"Remarkable paleness of skin and mucous membrane."—*Kraus*.

"Round spots of tetter over the whole body."—*Schreter*.

"Obstinate ulcers about the nails."—*Hah*.

"Ulcers bleed on the appearance of the menses."—*Hah*.

Troublesome and obstinate itching of the whole body.

Unhealthy skin, with a peculiar tendency to hemorrhages.

"Slight wounds bleed much."—*Hah*. [Very characteristic.]

Fever.—Typhoid and typhus, with impending paralysis.

"Chilliness evenings, rigors, diarrhœa, and aversion to uncovering."—*Hah*.

"Internal chilliness afternoons, with sensation of hot water in the stomach."—*Hah*. [Vomiting when anything is swallowed.]

"Chilliness every evening, without thirst."—*Hah*.

"Violent shaking chill at night, with diarrhœa; followed by great heat and perspiration all over."—*Hah*.

"Coldness in the knees constantly, at night in bed."—*Hah*.

"Of one hundred and seventy workers in match factories, one hundred and twenty were attacked with typhus, often complicated with pneumonia and bronchitis, that often developed into consumption."—*Allen*.

"Fever from 5 to 6 p. m.; violent chill, followed by heat with thirst, and internal chilliness; after the chill had passed off, heat and perspiration all night in bed."—*Hah*.

Fever for many days in the afternoon, with elevation of temperature every evening, with soft, adynamic pulse.

"Heat at night without thirst, with copious sweat, and ravenous hunger that could not be appeased."—*Hah*.

"Glowing heat of one or the other cheek every evening."—*Hah*.

In typhoid forms of fever, or hectic fever, or pneumonia, where they all assume the adynamic type.

Perspiration so copious the patient is exhausted, especially at night, in chronic ulcerations and septic fevers.

Copious perspiration, with much exhaustion during sleep, especially profuse toward morning; from malaria.

Profuse, exhaustive morning sweat; profuse over the whole body, on slight exertion; ulceration of the lungs.

Cold, clammy, sweats, very profuse at night, from debility.

Spine.—"Stiffness in nape of neck."—*Hah.*

"Burning pain between the scapulæ."—*Austie.*

"Hot spot in the spine."—*G.* [Or throbbing between shoulders.]

Degeneration and liquefaction of brain and spinal cord, producing complete paralysis of motion and sensation.

"The spinous processes of the dorsal vertebræ between the scapulæ became exceedingly sensitive to pressure, extending to the muscles, aggravated by emotional excitement."—*Hah.*

Throbbing, burning distress between the shoulders.

"Burning pains in the small of the back."—*Hah.*

Extremities.—Great weakness of the whole body, especially the legs; so weak can not walk, or so weak can scarcely raise the hands, in low septic fevers.

Remarkably weak and depressed, without slightest desire to attend to ordinary business; fatty degeneration of all the organs.

Utter and complete exhaustion of mind and body, can not walk, sit up, or talk; from sexual excess.

The whole body feels heavy, and numb, pricking sensation of the skin, with general marasmus.

Loss of power in all the limbs, especially in the joints.

"The hands and feet are as heavy as lead."—*Hah.*

"The extremities became as heavy as lead, and at last paralyzed, with pains in the muscles."—*Mannkoff.*

"Weakness of the arms, so she could not rest them."—*Hah.*

"The arms become numb and fall asleep."—*Hah.*

Hands feel numb and tremble; the tips of the fingers become very numb and insensible; paralysis of sentient nerves.

"Paralysis of the fingers; fingers drawn bent."—*Hah.*

"Weakness and weariness of the lower extremities."—*Hah.*

The lower extremities are so heavy and weary, can not walk.

"The right hip-joint was very painful."—*Hah.*

"Extensive periostitis of the tibia, with gangrene."—*Hah.*

"Heaviness in the hollow of the knees, with drawing pains from the knees to the feet."—*Hah.*

"Paralyzed feeling in the feet."—*Hah.* [With great œdema.]

"Bruised pain in the periosteum of the tibiæ, that is always sore to the touch."—*Hah.* [Chronic periostitis.]

The feet feel very heavy and are much swollen (œdema).

œdema of the ankles and feet, from heart disease, or fatty degeneration of the kidneys. Albuminuria.

In neuralgia, in many parts of body, with great anæmia and a broken-down, emaciated constitution, Phosphorus has done well.

Great sensitiveness to cold air; takes cold easily; irritability and weakness from excessive sexual indulgence.

Aggravation.—Evening until midnight; from cold; motion; after eating; during a thunder-storm; reading aloud; drinking water; unpleasant emotional excitement; when lying on the back or left side; and changes in the weather either way.

Amelioration.—In the dark; cold food or water; lying on the right side; during rest and after sleep.

PHYTOLACCA DECANDRA.

Poke Root.

Habitat: Europe, America, etc. Tincture of fresh root in the fall, Class III.

Antidotes.—Milk and Salt, Op., Coff., Ignat., Bell., Mez., Mer.

Through the cerebro-spinal nervous system, Phytolacca has nine special centers of action:

- I. DIGEST. O. *Violent Emesis; Stools Watery, Mucous, Bloody.*
- II. MUCOUS MEM. (THROAT AND STOM.) *Violent Inflammation.*
- III. KIDNEYS. *Congestion; Inflammation; Albuminuria.*
- IV. SERO-FIBROUS TISSUES. *Rheumatoid Inflam.; Hypertrophy.*
- V. GLANDULAR S. (TONSILS, PAROTIDS, THYROID.) *Infl.; Hyper.*
- VI. SEXUAL O. (MAMMÆ, OVARIES, TESTES.) *Inflam.; Suppur.*
- VII. SKIN. *Psoriasis; Tinea Capitis; Furuncles.*
- VIII. MEDULLA SPINALIS. *Convulsions; Paralysis.*
- IX. BLOOD. *Fibrine Increased.*

Digestive Organs.—The most prominent action of Phytolacca centers on the stomach and bowels. Through its action upon the pneumogastric nerve at its origin in the medulla, this drug

is a powerful emetic; but it is very slow in its operation. Vomiting often does not take place for one or two hours after its ingestion; but its action continues for a long time, affecting both the stomach and the bowels. Large doses produce excessive vomiting and purging, attended with great prostration and sometimes convulsions. The active principle produces a burning sensation in the stomach, vomiting; tenderness in the bowels, with a peculiar heat in the rectum, soon followed by tenesmus, mucous and bloody stools.

"I ate a small piece of the root, and gave some to several of my friends, a little before noon. Soon after, all who had eaten it, began to vomit. The matter rejected was first of the aliment, and then a dark bilious substance, which came away with as little effort as vomiting in Asiatic cholera. Vomiting and purging continued all the afternoon, with considerable griping pains and cramps in the abdomen. The emesis took place every fifteen or twenty minutes. Toward evening we were confined to our beds; extremities cold; pulse very slow; eyes deeply sunk in the orbits. We all passed a restless night, with some fever, considerable thirst, and the stools without pain. The next morning all the dangerous symptoms had passed off. We felt weak for several days, with a continuous diarrhœa."—*Dr. Bahrenburg.*

The continuous diarrhœa does not often follow as in the above cases longer than the second day. The vomiting caused by this drug, being centric, comes on suddenly, without much nausea, accompanied with a scraping, excoriating feeling in the throat, with a thick, ropy discharge from the salivary glands, cool perspiration, and excessive muscular debility.

Fibrous and Serous Tissues.—The action of Phytolacca upon these tissues, closely resembles that of Mezereum, Mercury, and Iodide of Potash. It not only affects the fibrous tissues and the periosteum, but it also affects the fibrous coverings of the muscles, and that which envelops or sheathes the nerves. In rheumatic and syphilitic affections, where these tissues are involved, many remarkable cures have been made with this drug. Dr. Smart says: "The sphere of Phytolacca in rheumatic affections appears to be in the fibrous tissues covering the bones and nerves. In rheumatic irritation of the sheaths of the nerves, as in *sciatic rheumatism*, it is especially useful; also in periosteal rheumatism and in periostitis. A leading indication for its use in periosteal rheumatism, is the presence of a syphilitic taint, which may be supposed to originate the troubles in the osseous

structures." It is more especially adapted to sub-acute and chronic rheumatism, where the periosteum and fibrous tissue are much hypertrophied as well as the muscles.

Glandular System.—Dr. E. M. Hale says: "It is esteemed very highly in *glandular affections*. In our pathogenesis we find the following symptoms: 'A very peculiar tension and pressure in the parotids; hardness of a gland on the right side of the neck; suppuration of a tumor behind the right ear, with discharge of blood and pus.' Dr. Burt found it to cause swelling and inflammation of the tonsils. Several Homœopathic physicians, with myself, have found it useful in swelling and induration of glands; it seems to have a specific affinity for the mammary glands. The root excites the whole glandular system, and has been highly extolled in syphilis, scrofulous and cutaneous diseases. It is said to hasten the suppurative process; it has been used with alleged success in bronchocele. The *Phytolacca* is an analogue of Mercury, Iodide of Potash, Baryta, Podophyllum, Arsenicum, and other similar drugs. It is strange that a vegetable remedy should be so analogous in its action to the Iodide of Potash. One symptom is quite notable,—the loss of adipose tissue in birds which have eaten of the berries. *Kali hydriodicum* has this power of causing absorption of adipose matter in a great degree; so, also, both are useful in periosteal, Mercurial, and so-called syphilitic rheumatism." The ashes of *Phytolacca* contain over *fifty per cent* of *Caustic potassa*, strong enough to act as an escharotic to fungus and cancerous ulcers. They also contain an acid called *Phytolactic acid*. This explains why the symptoms of this drug so closely resemble those of the Iodide of Potash.

"*Phytolacca* has a specific effect upon the thyroid and mammæ, also parotids and other glands of the throat, and by analogy ought to act powerfully upon the ovaries, glands of the cervix, and testes. . . . I have used it successfully in many cases of inflammation of the mammæ as well as for tumors and nodosities in these glands. . . . But the *Phytolacca* is not only useful in simple and inflammatory engorgement, causing rapid suppuration, but it is valuable in those cases where suppuration is already commenced. Here it reduces the inflammation, increases the activity of the absorbents, and will often condense an apparently large abscess to the smallest dimensions. It is often the case that neglected or ill-treated mammary abscesses degenerate into ill-conditioned fistulous ulcers. In such cases, I have seen the best results follow the judicious use of the remedy.

"I have found it useful in encysted tumors; recent indurations, and even in scirrhus of the breast. In those cases of irritable mammæ where there is no swelling, induration, nor tumor, only a painfulness at the menstrual period, I have found it of great use. The menses became more natural, and the pain in the mammæ ceased. The question here arises: Why will it not prove valuable in certain diseases of the testicles or the ovaries? When we consider the physiological relation of the ovaries to the mammæ, we predict it will be found useful in many ovarian diseases."—*Hale*.

Phytolacca is in constant use among dairymen to remove inflammatory engorgement of the udders of cows. In neuralgic affections and engorgement of the mammæ, it should be used locally as well as internally. For cracked and excoriated nipples, the cerate is of great value. It has also been found very useful where the secretion of milk was so profuse that the patient became exhausted from the excessive drain.

Kidneys.—The action of this drug upon the kidneys is so powerful that albuminuria is produced. This was a well-marked effect in my proving. The urine remained acid and became decidedly albuminous, with increased specific gravity; and there was pain in the region of the kidneys, with high-colored urine. It also has many symptoms pointing to direct action upon the liver.

Blood.—Phytolacca produces an excess of fibrine in the blood similar to that found in rheumatism, and especially diphtheria.

Cerebro-Spinal System.—The chief action of this drug on the animal nervous system, is upon the medulla; but it also acts upon the spine. My experiments upon animals with Phytolacca elicited many convulsive symptoms. It produces many neuralgic symptoms, with tingling and prickling sensations over the skin.

Dr. Griggs reports a case of poisoning with this remedy where "the extremities were stiff; eyes bleared and dancing, pupils contracted; lower lip drawn down, teeth clenched, lips everted and firm; muscular rigidity was general and opisthotonos established; pulse 85, soft and unresisting; temperature but little changed; respiration difficult and oppressed; mucous rale distinct and audible anywhere in the room. The contraction of the masseters precluded the idea of giving remedies by the mouth, and the amount of mucus in the bronchi that of administering anæsthetics. After an hour, had convulsive action of the face and neck, the chin drawn closely to the sternum, which condition

would last five or ten minutes, then partial relief for twenty minutes, when it would return the same as above described. The child recovered without emesis or catharsis, with retention of urine for one day."

It is a paralyzer, the loss of power occurring first in the lower extremities, similar to that of Conium. "The impairment of motility is not due to an action of this agent on the motor nerve or on the muscle; for the irritability of the nerve and the contractility of muscle remain unaffected when a lethal dose of *Phytolacca* has been given. The action is on the spinal cord, chiefly on the medulla."—*Bartholow*.

Skin.—Its action on the skin greatly resembles that of secondary syphilis; such as *psoriasis*, *pityriasis*, *lupus*, and *tinea capitis*. Dr. Searle has found it almost a specific for a tendency to boils, carbuncles, and malignant pustules.

Therapeutic Individuality.

Fibrous Tissues.—The patient is of a rheumatic diathesis, and is frequently afflicted with rheumatism of the periosteal and fibrous tissues, or is suffering from secondary or tertiary syphilis.

Chronic rheumatism where the periosteum is involved, especially if syphilitic; worse in damp weather.

Much stiffness of the neck many nights.

The back is very stiff every morning, and in damp weather.

Constant dull, heavy pain in the lumbar and sacral regions, aggravated by motion, and at night.

"Pains shooting from sacrum down to feet."—*Dr. Whipple*.

"Neuralgic pain in the outside of left thigh; sciatica."—*Jahr*.

Feels sore all over from head to foot; muscles sore and stiff.

Severe rheumatic pains in lower extremities, with nightly bone-pains.

Great exhaustion and prostration, after diphtheria.

"Syphilitic rheumatism, with enlargement of the parotid and submaxillary glands."—*Dr. O'Brien*.

"Rheumatism of the right frontal region, with nausea and aggravation in the morning."—*Dr. O'Brien*

"Chronic rheumatism of the left hip-joint, with effusion of the synovial fluid, and loss of the use of the joint."—*Dr. P. H. Hale*.

"Arthritis vaga, wandering gout."—*Dr. Neidhard*.

Rheumatism of the fingers, joints swollen hard and shining.

Great lassitude and desire to lie down, with rheumatism.

"Rheumatism of the spine; the pain passes up the neck to the back of the head."—*Dr. J. Reynolds*.

Rheumatism affecting periosteum, sheaths of the nerves and fasciæ.

"The only remedy I ever tried that would cure rheumatism of the scalp; the pains are dull, come on every time it rains, with depression of spirits."—*Dr. J. Reynolds*. [Especially following diphtheria.]

Head.—"Sense of entire indifference to life and disgust for everything."—*Jahr*. [In rheumatism.]

"Great loss of personal delicacy; a total disregard of all surrounding objects, and no disposition to adjust their persons under any circumstances."—*Dr. S. Rosa*.

"Vertigo with dimness of vision."—*Jahr*.

"Sensation of soreness deep in the brain."—*Jahr*.

"Headache, with sickness of the stomach."—*Dr. Marshall*.

"Dull, pressing pain in the forehead, with nausea; cool perspiration on the forehead, and great debility."—*Dr. Warren*.

"Headache in the frontal region extending backward."—*Dr. J. L. Keep*.

Pressive pain in forehead and top of head; rheumatism.

Eyes.—Rheumatic ophthalmia; lids much swollen.

Malignant ulcers of the lid; granular inflammation.

"The prominent feeling in the eye is that of smarting, or feeling of sand in the eye."—*Jahr*. [Aggravated at night.]

"Lids feel as if granulated, and the tarsal edges have a scalded, hot feeling."—*Jahr*. [Following diphtheria.]

The lids feel as if on fire; acute rheumatic ophthalmia.

Nose.—"Drawing sensation about the root of the nose, with a feeling as if a cold would come on."—*Jahr*.

Drawing, aching sensation in the root of the nose.

Face pale, pains in the bones of the face and head at night.

Mouth and Throat.—Great pain in the root of the tongue when swallowing.

Tongue feels rough, with blisters on the sides, and a very red tip; great pain in the root of the tongue when swallowing.

Tongue and lips dry, much pain in the fauces when swallowing.

The tongue feels as if scalded; coated grayish yellow.

"Irresistible desire to bite the teeth together."—*Dr. Merrill*.

Teeth all ache, feel sore and elongated; rheumatism.

Great congestion and swelling of soft palate and tonsils.

Sensation as if there was a lump in the throat that causes constant efforts to swallow; globus.

Salivation with metallic taste in the mouth; diphtheria.

Great roughness and rawness in throat; from inflammation.

Congestion and inflammation of the whole back part of the mouth and fauces; breath very fetid; tonsillitis or diphtheria.

Induration and ulceration of the tonsils, deglutition impossible.

Induration of the parotid glands in diphtheria.

Diphtheritic inflammation and ulceration of the throat.

Fauces, tonsils, and pharynx covered with dark-colored pseudo-membrane; but does not extend to the nares or trachea.

Excessive fetor of the breath in diphtheria, with high fever; great prostration, and aching of the head, back, and legs.

The great aching of the back and legs, feeling as if pounded all over, with the prostration, is very characteristic of *Phytolacca*.

Feeling as if a ball of red-hot iron had lodged in the throat

Difficult deglutition; with every attempt, excruciating shooting pains through both ears; regurgitating through the nostrils.

Dr. Bayes says: "Two of the principal diseases in which I have found this medicine of service, are diphtheria and fatty degeneration. Both are characterized by very feeble performance of nerve function, and by a tendency to failure of the heart's action. My experience with *Phytolacca* in diphtheria has been very favorable, given in one or two drops of the tincture, with a gargle of 40 to 60 drops of the tincture in half a pint of water. It appears to me to act as a specific stimulant to those organs and tissues which are primarily depressed by the poison; the throat, the heart, and the stomach; characterized by well-marked adynamic conditions, and in some of them partial paralysis remained for a time."

Dr. E. M. Hale says: "The diphtheria in which *Phytolacca* is indicated is generally *epidemic*, with a catarrhal or rheumatic origin. The symptoms partake of a rheumatic catarrhal character. It commences with very severe pains all over the body, apparently in the bones. The soreness and pain in the limbs, back, neck and head, are very severe. High fever mixed with chilliness and great weakness. The pain in the throat is chiefly at the root of the tongue, and in the tonsils, extending to the ears. The exudation, or pseudo-membrane, is pearly white or grayish white, and not of the malignant form.

"The value of *Phytolacca* has been verified by thousands of physicians of the Homœopathic school in England, Austria, Germany, Australia, and other countries as well as our own.

"To Dr. W. H. Burt rightfully belongs the honor of first introducing this remedy in the treatment of diphtheria. The recommendation was made to me during his heroic proving of the medicine. Those who undertook to sneer at the claims Dr. Burt set forth for this remedy, may well feel abashed when they see the great amount of evidence in its favor. Future generations of physicians, and innumerable patients, will remember Dr. Burt with heartfelt gratitude."

In *malignant cases of diphtheria*, where the membranes of the nose and trachea (croupal form) are involved, *Phytolacca* will *prove utterly useless*; and we must then select such remedies as the Cyanuret of Mercury, Kali bichromicum, Lachesis, Crotalus, Hepar sulphur, Bromine, Iodine, Arsenicum, and Rhus vernix, with a full milk diet to reduce the fibrine. In diphtheria, the use of a gargle of *Phytolacca* is of great value. It should be composed of one-half tincture of the green root and one-half water. If used hot so much the better. A gargle of Alcohol is supposed to be the best we have; but, with the addition of this drug, it is greatly superior to Alcohol alone; and I believe the great success of this remedy is largely due to its local application, combined with its internal action. *Phytolacca* corresponds to inflammation and ulceration of glandular structures, and ulcerations generally.

Stomach.—Easy vomiting without much nausea. Vomiting of the ingesta, bile, and blood, with a great accumulation of flatus in the stomach and bowels.

"Violent vomiting of clotted blood and slime, with retching, intense pain, and a desire for death to relieve."—*Dr. J. E. Gilman.*

"Intense vomiting and purging, with griping pains and cramps in the abdomen."—*Jahr.* [From biliousness.]

Great rumbling in the abdomen, and pain in the umbilicus, with stools of mucus and blood; gastro-enteritis.

The stools of *Phytolacca* are more bilious than bloody. It will cure dysentery, but is better in bilious diarrhœa.

Kidneys.—Albuminous urine, following diphtheria.

Dark red urine, leaving a deep red stain in the vessel.

Rheumatism with chalk-like sediment in the urine.

Fatty degeneration of the kidneys from a gouty diathesis.

Sexual Organs, Male.—Much soreness and rheumatic pains in the spermatic cords, with rheumatic orchitis.

Acute and chronic orchitis. (Locally and internally.)

Sexual Organs, Female.—Menses too often, too profuse, with increase of tears, saliva, bile, and urine; rheumatic females.

Barren females, menstruation very painful (rheumatic).

Ovarian neuralgia. (Rheumatic or gouty foundation.)

Nipples sensitive, cracked, and excoriated. (Use cerate.)

Fistular ulcers and abscesses of the mammæ.

Inflammation, swelling, and suppuration of the mammæ.

Mammæ full of hard, painful nodosities. Very similar to scirrhus. (It has cured many cases. It must be used locally as well as internally. Not useful after ulceration has commenced.)

Galactorrhœa; profuse discharge of milk; great exhaustion.

Irritable mammæ, (externally and internally); nursing very painful.

This is one of our most useful drugs in many diseases of the mammæ but it must be used locally as well as internally.

Mastitis where the hardness is very apparent from the first; much sensitiveness. (See Belladonna, Conium, and Graphites.)

Cancer of the mammæ has (apparently) been cured many times with this drug. It has also cured cancer in many parts of the body. I have seen it cure a large one on the forehead, and one the size of a hen's egg in the breast, used locally and internally. (These were diagnosed to be cancer.)

Skin.—Eruptions and ulceration from secondary and tertiary syphilis; squamous eruptions; eczema, herpes, boils, and barber's itch.

Tinea capitis, and various ulcerations, in rheumatic, gouty subjects.

Aggravation.—Evening and night; damp weather; motion.

Amelioration.—While lying down (most symptoms); during the day, and dry, warm weather.

PLANTAGO MAJOR.

Plantain.

Habitat: Europe, Asia, America, etc. Tincture of the fresh plant. Class I.

Through the cerebro-spinal system, *Plantago* has four special centers of action:

- I. FIFTH PAIR OF NERVES. *Excessive Hyperæsthesia.*
- II. SKIN. *Prurigo; Urticaria; Papulæ.*
- III. DIGESTIVE ORGANS. *Parasiticide; Diarrhœa.*
- IV. URINARY ORGANS. *Paralysis of Sphincter Vesicæ.*

Cerebro-Spinal System.—Upon the filaments of the fifth pair of nerves, no known remedy has a more specific action. It produces great sensitiveness of the teeth; they feel greatly elongated and sore to the touch and can not bear cold air or contact. Dr. Reutlinger says that the 2d dilution of the plant will cure seven-tenths of all cases of odontalgia in about fifteen minutes; and scores of Homœopathic physicians have cured toothache of the most aggravating kind with *Plantago* in different potencies up to the 30th. It should be used locally as well as internally. It also acts upon the ear similarly to *Pulsatilla*, and cures otalgia.

Skin.—It causes great irritation of the nerve filaments of the skin, producing *prurigo*, *urticaria*, and *papulæ*, with severe itching, pricking, and burning sensations. Externally, in the form of a poultice, or lotion, *Plantago* has greatly benefited burns, scalds, frost-bites, chilblains, bites of animals, bruises, inflammation of the mammæ, erysipelas, and *Rhus*-poisoning.

Digestive Organs.—Here it produces a state similar to verminous affections, such as grinding of the teeth, colic, diarrhœa, nocturnal enuresis, etc.

It is especially useful in nocturnal enuresis of children when there is a lax condition of the sphincter vesicæ. It has been highly extolled in cholera infantum, diarrhœa, and dysentery. The pains of *Plantago* are of a tearing nature.

In chronic intermittent fever, *Plantago* has made some brilliant cures, especially after the abuse of Quinine.

PLATINA.

Platinum.

An element. Trituration.

Antidotes.—Puls., Plumb., Spir. nitr. dulc.

Through the cerebro-spinal nervous system, Platina has three special centers of action:

- I. CEREBRO-SPINAL SYSTEM. *Depression; Paresis; Anæsthesia.*
- II. SEXUAL O., F. *Conges.; Hypertrophy; Menorrhagia; Neural.*
- III. DIGESTIVE ORGANS. *Indigestion; Flatus; Constipation.*

Animal Nervous System.—Through the cerebro-spinal nervous system, Platina produces great depression of the sensorium and a general tendency to torpor and paralysis. It acts especially on the peripheral nerves, in opposition to Opium.

"The chief action of Platina appears to be upon the nervous centers,—the symptoms being generally characterized by depression. There is a strong tendency to paralysis and anæsthesia; and, in the emotional sphere, there is anxiety and apprehension, even to the fear of death."—*Dr. R. Hughes.*

"The action of Platina is exerted in the most marked and peculiar manner upon the mind and disposition; upon the second and third branches of the trifacial nerve, and upon the sexual organs of women. It acts, like Ignatia, much more upon the vital forces than upon the organic substances of the body. It further resembles Ignatia in the fact that it interferes with and deranges the co-ordination of functions, destroying the harmony with which related functions are performed in the healthy body. It differs from Ignatia in this, that the Ignatia patient has a disposition to grieve in melancholy sadness; and Platina, on the other hand, belongs to cases in which the mind rises in defiant and distorted superiority over the causes of vexation or sorrow; becomes, first, demonstratively apprehensive, then alternately demonstratively lachrymose and boisterously merry, and at last absurdly supercilious; the personality of the patient is obtruded on one's notice."—*Dr. Dunham.*

Sexual Organs, Female.—Through the filaments of the spermatic plexus of nerves, distributed to the ovaries, Platina has a profound action upon the generative organs of women; producing premature and profuse menstruation, and menorrhagia. With this action, there are many spasmodic and neuralgic phenomena, mixed up with paralysis, anæsthesia, and many hysterical symptoms.

"Platina holds the same place in the treatment of chronic ovarian disease as Aurum in corresponding affections of the testicles. Hering recommends it for induration of the ovaries (Hahnemann had already mentioned a similar condition in the uterus as indicating it); and Mr. Harmer Smith has published a case of chronic ovarian irritation, with sterility, in which it was curative. The distinguishing feature between Platina and Pulsatilla in these cases is, that with the former there is menorrhagia, with the latter the reverse."—*Dr. Hughes.*

Digestive Organs.—It produces torpor of the intestinal canal, with flatulence and constipation.

The Chloride of Platina has been used with much success in chronic syphilitic diseases, resembling in its action the Chloride of Gold, where profound depression of mind is a leading symptom, and the Iodides of Mercury and Potash fail.

Therapeutic Individuality.

General Indications.—Females with dark hair, thin, of a sanguine or bilious temperament, and who suffer from too frequent and too profuse menstruation, and whose sexual organs are exceedingly sensitive.

"The kind of pain characteristic of Platina is a cramp-like, squeezing pain,—a kind of crushing together. It is peculiarly characteristic of this pain that it begins, gradually increases in severity, and then gradually ceases, resembling Stannum."—*D.*

"Most of the Platina symptoms are worse when the patient sits or stands, relieved by walking, and greatly aggravated at night."—*D.* [Hysterical rheumatism.]

Mind.—Hysteria, with much depression of spirits, and indigestion.

Great melancholia in females with uterine diseases.

"Very nervous, spasmodic temperaments; with great anguish; she feels as if she would lose her senses and die soon."—*G.*

"Anxiety, weeping, palpitation, with a numb feeling in the malar bones, as if the parts were between screws."—*Raue*.

"Self exaltation and contempt for others. On entering a room after a walk, everything looks small; she feels large and looks down upon them."—*Douglas*.

"The physical symptoms disappear, and the mental symptoms appear, and *vice versa*."—*G*.

"Arrogant, proud feeling; contemptuous, pitiful looking down upon people usually venerated, with a kind of casting them off; feels herself large and superior."—*Hg*.

"Very restless disposition, with sadness, the most joyful things distressed her; life wearisome, but has great dread of death, which seems near at hand."—*Hg*.

"Out of sorts with the whole world, everything seems too narrow; weeping mood; trifling things produce profound vexation, and remains a long time in the sulks."—*Gross*.

Head.—"Vertigo on sitting down or going down stairs."—*Dr. Musits*.

"A numb sensation in the forehead as if constricted; soon increasing to a violent, dull headache."—*Gross*.

"Cramp-like drawing constriction in the head from time to time about the forehead; commencing slight, increasing until violent, and slowly ceasing."—*Gross*.

"Tense numb sensation in the zygomata and mastoid processes, as if the head were screwed together."—*Gross*.

"Crawling, like formication, on the right temple, extending down the lower jaw, with a feeling of coldness in it."—*Gross*.

Nervous deafness, with greatest variety of noises in the ears.

Objects appear smaller than they really are, with spasms of the eyelids, in hysterical females.

Spasmodic yawning, with great sleeplessness.

Face feels cold and numb; hysterical subjects.

Digestive Organs.—"Crawling on the tongue and feeling as if it was burnt."—*Gross*. [Hysterical affections.]

"During the contemptuous mood, suddenly ravenous hunger, and greedy, hasty eating."—*Gross*. [Hysteria with delusions.]

"Loud eructations, when fasting and after eating."—*Gross*.

"Much fermentation in the stomach."—*Hg*. [Flatulence and constipation.]

"Constant nausea, with great weakness, anxiety, and tremulous sensation through the whole body in the forenoon."—*Gross*.

"There is little that is distinctive in the digestive canal, except in so far as the stool is concerned. This is retarded; the feces scanty, hard, evacuated with difficulty and almost dry; requiring great effort of the abdominal muscles; and is followed by great weakness in abdomen, with sharp stitches in rectum."—*D.*

Dr. Guernsey says: "The stool is exceedingly difficult; adhering to the rectum and anus like soft clay."

Urine pale and copious. In hysteria and mental affections.

Sexual Organs, Female.—Hyper-sensitiveness of the generative organs is the great characteristic for Platina.

"Excessive sexual desire, particularly in virgins."—*G.*

"Voluptuous tingling in the vulva and abdomen, with depression of spirits, anxiety, and palpitation of the heart."—*G.*

"Mons veneris cold and excessively sensitive to the touch, can not bear the napkins usually applied."—*G.*

"Labor-pain suspended by the very painful sensitiveness of the vagina and external genital organs; the pains spasmodic and excessively painful."—*G.*

"Menses in excess; blood dark and thick, with chilliness and sensitiveness of the vulva."—*G.* [With much prostration.]

Splendid in metrorrhagia, with discharge of thick, black blood.

"Metrorrhagia, or menorrhagia, with sensation as if the body was growing larger every day."—*G.*

"Great bearing-down in genitals; profuse menstruation."—*G.*

"The menses appear much too early, and are very copious. Moreover, there are uterine hemorrhages, copious and often recurring. As in most uterine hemorrhages, the color and consistency of the blood furnish a valuable characteristic of the remedy. It is very dark, and, without being coagulated in distinct masses, it is thick and tarry; accompanied by dragging and pressing downward in the entire pelvis, with pains in the sacrum, and unnatural sensibility of the genital organs."—*D.*

"Amenorrhœa, with painful pressure, as if the menses would appear, with pain in the small of the back."—*G.*

"Much threatening of the menses to come on."—*G.*

"Ovaritis; the pain in the region of the ovary is of a burning character, occurring in paroxysms, with stitches in the forehead, and excessive sexual desire."—*G.*

Oophoritis during climaxis, with menorrhagia and hot flashes.

Indurations of the uterus, with excessive sensitiveness.

"Albuminous leucorrhœa, only in the day-time, with great sensitiveness of the vagina."—*G.*

"Nymphomania; especially in lying-in women, with voluptuous tingling from genitals into abdomen."—*Hg.*

Amorous dreams with debility in both sexes.

Weak, hysterical women that sigh much; the lungs feel so weak she can not take a full breath.

Hysterical cough, from stifling behind the upper fourth of the sternum.

Back.—"Weakness in the nape of the neck; the head sinks forward."—*Hg.* [In female diseases.]

"A numb sensation in the nape, close to the occiput, as if tightly bound."—*Dr. Gross.* [Hysterical reflex congestion.]

"Pain in back and small of back as if broken."—*Dr. Gross.*

"While sitting, numbness in coccyx as after a blow."—*Gross.*

Extremities.—A feeling of complete prostration.

"Cramp-like pain close to the shoulder, as if in the chest everything were tightly constricted."—*Dr. Gross.* [Hysterical affections.]

Left arm feels paralyzed, in hysterical women.

"Tightness of the thighs as if too tightly wrapped; with great weakness."—*Dr. Gross.*

Very weary, relaxed, and prostrated in female diseases.

Aggravation.—In evening; warm room; in bed; at rest, and from anger.

Amelioration.—In open air; from motion; after sleep; during the day, and from cold air.

PLUMBUM METALLICUM.

Metallic Lead.

An element. Trituration.

Antidotes.—Milk, Alumin., Op., Bell., Zinc., Nux vom., Sulph., Alkalies, Acids.

Through the cerebro-spinal system, Lead has nine special centers of action :

- I. MOUTH. *Blue Line upon Gums; Fetid Breath.*
- II. STOMACH. *Severe Retching and Vomiting.*
- III. ABDOMEN. *Retracted. Constipation; Colica Saturnina.*
- IV. KIDNEYS. *Granular; Contr'ted; Albumin.; Uric Acid Dim.*
- V. BRAIN. *Encephalopathia.* NERVES. *Fatty Degeneration.*
- VI. EYES. (OPTIC NERVE.) *Atrophy; Amaurosis.*
- VII. MUSCLES. *Fatty Degeneration; Paralysis; Atrophy.*
- VIII. BLOOD. *Loaded with Urates; Arthralgia Saturnina.*
- IX. JOINTS, CARTILAGES, BURSÆ, FIBROUS TISSUE. *Arthralgia.*

Digestive Organs.—The salt of Lead that is most apt to produce toxic symptoms is the Acetate. "The first result of a toxic dose of this, is, in most cases, a persistent sweet, somewhat metallic, taste. This in a few minutes is followed by vomiting, which may or may not be preceded by nausea. The matters vomited are often milky white from the presence of Chloride of Lead. A severe, persistent burning pain in the abdomen now comes on, and is accompanied with a craving for drink. There may be diarrhœa or obstinate constipation. In either case, the stools are generally black from the Sulphuret of Lead. In some cases, collapse is developed, the pulse falls to forty or fifty per minute, the voice is lost, the face is deadly pale, lips livid, and syncope seems imminent. In other cases, the nervous symptoms predominate, or they may accompany those of disordered circulation. Cramps in the calves of the legs, severe neuralgic pains in the extremities, paralysis and anæsthesia, vertigo, stupor, may any or all of them be present. In fatal cases, coma, with or without convulsions, finally develops. A distinctive mark of

Lead-poisoning which sometimes is present very early is the *blue line upon the gums*. After death, inflammation of the alimentary mucous membrane is sometimes, but not always, found.

"The fatal dose of Sugar of Lead is between one and two ounces; the Sub-acetate is more poisonous, and the Nitrate acts as a violent irritant. The Carbonate appears to be incapable of causing acute poisoning."—*H. C. Wood*.

Chronic Lead-Poisoning.—"Chronic Lead-poisoning shows, sooner or later, almost without exception, signs of impaired nutrition. Even when the patient experiences no diminution of his strength and general health, his aspect becomes changed, and the skin assumes a peculiar yellowish hue, *icterus Saturninus*; but this color has nothing to do with the biliary pigments. There is rarely wanting, as a characteristic mark of the action of Lead, a dark or bluish-black line at the junction of the teeth and gums, always most strongly marked upon the upper jaw; and it shows most plainly in people who have bad teeth, with deposits of tartar upon them. The black edge of this line is due to the deposition of particles of the Sulphide of Lead in the substance of the gum. In rare cases, this slate color spreads over the entire gum, or even over the whole mucous membrane of the mouth (Tanquerel).

"As further signs of the action of Lead upon the system, we have a characteristic insipid, sweetish, mildly astringent (Lead) taste, and at the same time, a very fetid breath. (The fetid breath is due to its perverted action upon the lymphatics of the lungs.) . . .

"*Colica Saturnina*.—This is the first, and by far the most frequent, form in which chronic Lead-poisoning manifests itself. Not unfrequently, it comes on very suddenly, without any previous symptoms. In most cases, however, some warning is given. For weeks preceding the attack of colic, the patient is tormented by moderate wandering pains, which are sometimes aggravated by eating, and sometimes entirely independent of meals. At the same time, increased disturbance of digestion is noticed, loss of appetite, increase of the peculiar sweetish taste, and constipation, and in some cases diarrhœa. With these prodroma, the case can be arrested. In most cases, these symptoms are followed by the outbreak of the disease, beginning with colicky pains. These vary in intensity; they may be inconsiderable, or may, on the other hand, be so severe that the patient attempts suicide. According to the severity of the attack, the patient is affected

mentally in a greater or less degree, often being excited to the utmost violence. Besides the attacks of colic, which rarely last more than a few minutes (Tanquerel saw them last for hours), there are some sensations of pain which do not entirely cease, a continued griping and cramp in the abdomen being present almost without exception.

"Pressure on the abdomen never increases the pain in severe attacks, but, on the contrary, almost always gives relief. At the time of the remission, it is agreeable to the patient, and very rarely increases the pain. The seat of the pain varies. Generally, it is in the region of the umbilicus, sometimes in the upper and sometimes in the lower part of the abdomen, and rarely in the region of the kidneys. No classification of Lead colic based upon this is of any value.

"In many cases, the pains are accompanied by tormenting and frequent tenesmus; in others, together with or in place of tenesmus, there is strangury or retention of urine, with severe pain extending along the course of the ureters or spermatic cord to the kidneys, or to the penis. There are also shooting pains in the breasts. These pains are doubtless in part due to powerful contractions of the intestinal wall; at all events, Tanquerel succeeded in feeling very energetic contraction of the rectum during an attack of colic, by digital examination; he also thought that he could detect a contraction of the sphincter vesicæ by the introduction of a catheter.

"In addition to the colic, retraction of the abdomen and constipation are rarely wanting. The retraction of the abdomen is often very great,—so great that the bodies of the vertebræ can be seen through the skin of the abdomen. The entire abdomen is generally sunken, so as to be boat-shaped, and is hard. At times the retraction is irregular. In not a few cases, however, this is entirely wanting, and in its place there is swelling of the abdomen. The same is true of constipation; notwithstanding the importance of this symptom in the diagnosis of Lead colic, yet it is in many and even severe cases, wanting, and diarrhœa occurs in its place. Nevertheless, in by far the majority of cases, constipation is co-incident with the pain, not only in time but also in degree; and they may last for several weeks. Violent vomiting, or at least nausea, is also a very common occurrence. The vomiting is often preceded for a long time by ineffectual retching, and occurs generally during the remission of the colicky pains. The vomited matters are usually tinged with bile.

"The course of the disease, chiefly limited to the colic, varies. As a rule, it is more severe in the evening and night, when all of the symptoms become worse. Even after long intervals free from pain, and when the disease seems to be at an end, relapses are very frequent; they occur after the expiration of days and weeks. The duration of the disease is, as a rule, not more than a week, especially in recent cases; but it can be prolonged very much by repeated relapses, and may finally, especially in old cases, and where there is a fresh exposure to the action of the poison, become chronic. The termination of the disease, following the cessation of the colic, is often very sudden. The prognosis is on the whole very favorable; extensive statistics by Tanquerel show the mortality to be only two per cent."—*Ziemssen*.

This Lead colic is, without doubt, a neurosis of the peripheral nerves of the intestinal plexus, from degeneration and regeneration of the peripheral nerves, as shown in post mortems.

"The abdominal phenomena of Lead-poisoning at once suggest it as a remedy for colic and constipation, whether occurring separately or together. And, indeed, I know of no better instance of the truth of the law of similars than the beautiful action of Plumbum in such conditions. For obstinate habitual constipation, when the stools are dry and lumpy, and the intestines half paralytic and half crampy, I have the utmost confidence in it. It is no less valuable in what Dr. Copeman calls 'obstipation;'—that is, an impaction of fæces. This use of Lead, inexplicable save upon the Homœopathic hypothesis, has been recently imported into ordinary practice by Dr. Thorowgood, of course without acknowledgment of its source. We carry it still further, relying upon the medicine in any form of obstruction of the bowels that has not a mechanical cause; and, in incarcerated and even strangulated hernia, before the knife is resorted to, Plumbum should be tried. . . .

"The association of colic with constipation, and of constipation with colic, always forms the special indication for Plumbum as a remedy for either. But association is not essential. The habitual costiveness in which the medicine is so efficacious may be quite painless; and, on the other hand, Baehr has related one case, myself another, of what may fairly be called neuralgic enterodynia cured by it, where the bowels were regular enough. In such cases, the sense of retraction in the abdomen mentioned as characteristic by Dr. Guernsey, or the actual hard and tense condition observed by Baehr, may guide to its choice."—*Dr. Hughes*.

Kidneys.—"I come now to the action of Lead upon the urinary organs, which are an important seat of its influence. In the first place, we have Dr. Ringer's statement, that, after the administration of its salts, there is an increased amount of mucus in the urine, with signs of irritation of the lining membrane of the bladder, even to the extent of inducing a catarrhal condition. Correspondingly, Teste claims to have cured with Plumbum several chronic affections of the urinary organs. But of still greater interest is the action of the poison on the kidneys. These are found, as I have said, small and granular; there is present the contracted kidney, which constitutes the most serious form of Bright's disease. So frequently does this lesion occur in the subjects of Plumbism, that Dr. Dickenson states that it was found in twenty-six out of forty-two workers in Lead who died from various causes at St. George's Hospital. During life, albuminuria is an evidence of the mischief being set up; and it has been thought that the Saturnine epilepsy may sometimes be due to it.

"Another effect of the renal degeneration induced by Lead is that the separation of urates from the blood is checked, so that the uric acid of the urine is diminished while that of the blood is increased. This is the pathological condition which, according to Dr. Garrod, excites gouty inflammation; and he and Dr. Ringer agree in stating, from experience, that if to a gouty person, free at the time from the special manifestation of the disease, a salt of Lead is administered, it develops an acute attack of gout, with its usual symptoms of severe pain and high fever. Dr. Garrod accounts in this way for the frequency with which gout appears among workers in Lead, as compared with those following other occupations. Of all this, there need be no question. But it is another thing to suppose that Lead causes its renal degeneration through the intermediary development of gout. That its kidney is the 'gouty kidney' is unquestionable; but only, I think, because both it and the gouty poison have the same renal action. It is admitted, that, in many instances, the granular kidney is the only gouty manifestation present in the subjects of Lead-poisoning; and Dr. George Moore has entered into a thorough examination of the evidence in a paper contributed to the twenty-fourth volume of the *British Journal of Homœopathy*, the result of which is entirely adverse to the causation of true gout—or rheumatism—by Lead.

"We conclude, then, that Lead causes granular degeneration of the kidneys by a direct and specific action; and should be a hopeful remedy for the disease, whether of gouty or other origin.

No remedy, moreover, so closely corresponds to the general phenomena of the malady,—as the atheroma, the cachexia, and the depression of spirits; the amaurosis also of the two is precisely similar. The only recorded experience of the use of Lead in renal disease is that of Lewald, as given by Dr. Ringer. He found it to constantly diminish the albumen in the urine, though only by nine or ten grains in the twenty-four hours. The diminution appeared to hold no constant relation to the quantity of Lead administered. At the same time, and with the same absence of quantitative relation to the drug, the amount of urine was increased in the same period by 200 cubic centimeters. The form of the renal mischief here is not stated. I have tried the treatment in two well-marked cases of granular degeneration. In one the effect was *nil*, save to relieve an accompanying constipation. In the other, great improvement in general health ensued for a time; but a chill caused pericarditis and death.”—*Dr. R. Hughes.*

Cerebro-Spinal System.—We have much to learn of the action of this drug upon the brain and spinal cord. The symptoms given in our books are many; but the lesions are not well defined. The “Encephalopathia Saturnina is in every respect the most severe of the forms in which chronic Lead-poisoning manifests itself. Hence, it is found almost exclusively among laborers, whose work favors a copious absorption of the poison; and in them it occurs in a proportionately large number, and often surprisingly early. Of seventy-two cases collected by Tanquerel, it was developed in one in eight days; in ten, in the course of the first month; and in forty-four, in the course of the first nine months. On the other hand, in only twenty-eight cases was it developed in from one to fifty-two years after the individuals had begun to work in Lead.

“In animals, it is very frequent; and in dogs, after experimental poisoning, it is almost always the symptom which last appears.

“In Lead workers, encephalopathy may come on very suddenly after one of the Lead affections, or without the precedence of such, or beginning with the prodroma usual to the disease. The most important of these are violent headache and amaurosis Saturnina. Less certain symptoms are stupor and apathy or excitement. The true encephalopathy develops with a more or less gradual or sudden increase of sensory disturbances, and the appearance of general or partial convulsions. The symptoms, as already mentioned, are not the same in all cases; sometimes there is simple maniacal excitement, with tendency to violence,

sometimes melancholia, with corresponding hallucinations; in other cases, convulsive attacks appear quite early. Sometimes, but on the whole rarely, the convulsions are more partial, while at the same time the unconsciousness is more or less completely wanting; in most cases the appearance of acute eclampsia Saturnina is the most common and the principal symptom of encephalopathy.

"The eclamptic attack comes on very suddenly, or after the above prodroma. The attack does not at once reach its greatest intensity in the severity of the convulsion and duration of the coma; but the more severe attack comes on soon after the first mild one has passed off, and the patient has awakened from a short period of unconsciousness. After this one, the coma is of a longer duration; and, after a while, in most cases, it does not cease at all, and the most violent epileptiform attacks follow one another in rapid succession. According to Tanquerel, eclampsia Saturnina is never preceded by an aura. Between the attacks, there are frequently uneasiness and delirium, instead of coma.

"Thus the case may last for several days. Where the attacks are very frequent, death usually takes place rapidly; in mild cases, the attacks are less frequent; and in the interval consciousness, at first temporary and incomplete, gradually becomes fully established, or the patient may awake from a very severe attack like an epileptic from a paroxysm, and thus complete recovery ensue, which, however, not unfrequently soon gives way to a relapse.

"*Amaurosis* is the most important of the symptoms accompanying encephalopathy. It may, as Tanquerel says, come on before, with, or after, the attack of encephalopathy, often suddenly, but in some cases gradually, sometimes also quite independently of the encephalopathy. The appearances are, according to ophthalmologists, normal fundus oculi, normal boundaries of the field of vision, and central scotoma."—*Ziemssen*.

* Dr. Wood says: "Among the rarer forms of nervous disturbance induced by Lead, may be mentioned, *amaurosis* from atrophy of the optic nerve, the atrophy being probably the result of an optic neuritis; hemiplegia and hemi-anæsthesia, and violent and intractable chorea."

"The only lesion which the nervous centers present in fatal cases of Lead-poisoning with cerebral symptoms, is an apparent hypertrophy of the brain, or at least a state of tension so great, that, although there is actually less blood than usual in the cerebral vessels and less effusion in the ventricles of the brain, the

surface of this organ has a flattened appearance; and if, before the calvarium is removed, portions of the skull and of the membranes are excised by means of a trephine, the cerebral substance will rise into the opening and even protrude from it."—*Stille*.

"Plumbum, from its pathogenetic effects, should be no less beneficial in local spasms than in general convulsions; and so it has proved. Dr. Stokes has put on record a case of cramps of the calves of long standing rapidly cured by it. Drs. Chapman and Cooper have illustrated its value in spasmodic conditions of the rectum and anus, and Teste has removed with it painful retraction of the testicles. Dr. Dyce Brown has called our attention to the important observation that vaginismus has been observed as an effect of Lead-poisoning,—a fact which may yet be turned to practical service; though I found the medicine inoperative in a case in which I gave it. In a case of incurable paralysis which I once treated with it, the cramps, which constituted the most distressing element of the case, were almost entirely removed by it."—*Hughes*.

Epilepsy has been cured many times with Plumbum, by Drs. Rush, Spence, Agnew, Eberle, and many others. It is as truly homœopathic to chronic epilepsy as Hydrocyanic acid is to the acute form.

Muscular System.—The action of Lead upon this system is by some supposed to be through the spinal nerves; but Prof. H. C. Wood says: "According to MM. Debove and Renault, the first changes that occur in the affected muscles are those of sub-acute myositis similar to that seen in the neighborhood of a seton. The electro-muscular contractility may be lost before voluntary movements. It is stated by M. Raymond that the short extensor of the thumb preserves its function when all the other extensor muscles are paralyzed. The paralyzed muscles are finally exceedingly wasted; and their structure may be so totally destroyed that scarcely a single striated fiber can be found. The nerve-trunks are lessened in size; in many of their tubules the medulla has been replaced by fatty granules, and in some cases every trace of the tubules has disappeared, and the nerve reduced to a fibrous cord. The symmetry and localization of the paralysis in Lead-poisoning would seem to indicate a spinal origin; but, so far as I know, no very distinct spinal lesion has as yet been found out. Dr. E. Lancereaux, in a very careful study of a case, could only find some of the spinal cells more granular than normal, and apparently atrophied. In some cases

of Lead-poisoning, no decided anatomical alteration can anywhere be detected."

"Lead-paralysis is the third of the Lead affections, both in frequency and in order of succession. Tanquerel has shown that paralysis may occur as early as on the third day after the first exposure to Lead; further, that, in one hundred and two cases, nine occurred in the course of the first month, and fourteen in the course of the first two months; thirty-four in the course of two years, and forty-eight after ten years. Some have been exposed fifty-two years before the paralysis.

"In its localization, Lead-paralysis shows an almost freakish opposition to arthralgia, which is seemingly so nearly related to it. In the latter, a predilection is manifested for the lower extremities and for the flexors; while in paralysis (of Lead), in the great majority of cases, at first at least, the upper extremities and the extensors are attacked. Paralysis of the extensors of the hand and fingers (especially of the extensor communis), with freedom of the supinator, is the characteristic and well-known form of Lead-paralysis; next, the triceps and deltoid are most frequently attacked. The same is true of the lower extremities when they are attacked, which rarely takes place until long after the paralysis of the hand and fingers, the extensors (dorsal flexors) of the foot, on the peroneal side, and those of the toes, losing their power. Only in rare cases are the respiratory (intercostal) or the laryngeal muscles affected. Rarely, however, as cases of this form of paralysis are produced, still it is positively established by the frequent appearance of paralysis of these muscles in animals poisoned with Lead. Horses in Lead mills frequently have paralysis of the vocal cords, rendering tracheotomy necessary. Even Tanquerel has never observed paralysis of the muscles of the face or eyes in Lead disease. It is to be especially observed that the extent of the paralysis, as in the fore-arm, does not correspond with the distribution of a peripheral nerve. The muscles affected in ordinary Lead-paralysis of the hand and fingers are, as a rule, those which are supplied by the radial nerve; but usually one or more of the muscles receiving fibers from this nerve remain unaffected. In the majority of cases, the paralysis affects the extremities of both sides, and often the same muscles in both extremities. There are cases, however, in which only one extremity is affected; and cases are not very rare in which the muscles paralyzed in the two extremities are different. In rare cases, Lead-paralysis may resemble hemiplegia, on account of both the upper and lower extremity on the same side being attacked.

"The characteristic appearance of Lead-paralysis is often obscured by the fact that it may be exceedingly limited,—confined to the extensor of a single finger, for example,—or by the fact, that, beginning in the usual manner, it may involve all of the muscles of a limb, or may even finally spread over the whole body. Very slight impairment of the functions of the flexors is observable at an early stage, even when the paralysis seems to be purely of the extensors. Tanquerel and others explain this by the defective extensibility of the paralyzed muscles. Better is the explanation, that, in pure extensor paralysis, the position of the hands, for example, is unfavorable to the exercise of the flexors, and limits their function. Sensibility is usually unaffected in Lead-paralysis; more frequently there are, at the commencement, pains in the unaffected muscles; rarely complete anæsthesia of the skin, corresponding, or nearly corresponding, to the distribution of the paralysis; in individual cases, there is anæsthesia of the deeper parts also. On the other hand, trophic disturbances are never absent. The extraordinarily rapid atrophy of the paralyzed muscles, often reaching a high degree in a few weeks, is, next to localization, the most characteristic sign of Lead-paralysis. The shrinkage of the muscles attains a degree seldom seen, except in progressive muscular atrophy; and it is so much the more apparent in this disease, since the neighboring muscles preserve their normal and well-developed volume; thus, the atrophy of the extensors produces a deep furrow on the outside of the fore-arm. By examination with electricity, there appear early those signs which are seldom wanting in peripheral neuro-paralysis; speedy diminution, even to complete disappearance, of the reaction to the Faradic (interrupted, induced) current, occasional appearance of greatly increased excitability to mechanical irritants; predominance of Ka S Z, and increase of time occupied by the contraction wave. The observation of Erb, who found this abnormal reaction very well marked in a patient with Lead-paralysis in muscles in which the paralysis had not become developed, is very interesting and important. In the further course of the paralysis, many deformities may arise, such as dislocation in the more movable joints, as the shoulder and phalanges; and the tumors thus formed—upon the back of the hand, for example,—can be very easily mistaken for gouty swellings. As mentioned above, however, true gouty swellings occur as a complication. Often there is tremor of the paralyzed muscles, especially at the time of the appearance and disappearance of the paralysis. Tremor is frequently observed in the facial muscles, which are

never affected with Lead-paralysis. . . . In addition, we would mention progressive muscular atrophy as having been frequently observed in patients suffering with Lead disease.

"The *pathological changes* are found in the *muscles* and *peripheral nerves*. Examination of the central nervous system has always given negative results. The most important change is that observed by Westphal, who found in one case of Lead-paralysis, which developed gradually for two years, an *abundant new formation of nerve-fibers* in the radial nerve, which he rightly considered to be due to previous degeneration; this was confirmed by an earlier observation of Lancereaux. Several authors, and among them Bernhardt, found, in examining muscles atrophied by Lead-paralysis, that they were *shrunk and very granular*; and between the fibers he observed an abundant formation of connective tissue poor in nuclei,—in part, probably, the empty sheaths of fibers, the contents of which had disappeared."—*Ziemssen*.

Blood.—"The influence of Lead on the urates in the blood is most singular. Dr. Garrod, in his remarkable investigations concerning gout, has elucidated this subject, and shown the intimate connection existing between Lead-poisoning and gout. In gout, as this philosophical observer has shown, the urates, probably with increased formation, are retained in the blood. In gout, especially during the acute attacks, scarcely any uric acid is to be found in the urine, while an abundant quantity is detectable in the blood. The urates dissolved in the blood manifest special affinity for particular structures, as the cartilages, bursæ, and fibrous tissues, particularly of certain parts; and, during the deposition of the urates in the joints, acute inflammation is excited, and this constitutes gout.

"Now, Lead checks the separation of urates from the blood by the kidneys, diminishes the uric acid of the urine, thus greatly augmenting that of the blood; and thus we have the pathological condition which excites the gouty inflammation. Dr. Garrod has further shown—and his experience is corroborated by all who have investigated this subject—that gout very frequently occurs among Lead-workers, and that gouty patients often exhibit the characteristic blue Lead line on their gums.

"There, too, is the fact in further confirmation of Dr. Garrod's discoveries, that, if to a gouty person, free at the time from an acute attack, a salt of Lead is administered, it develops acute gout, with its accompanying symptoms of severe pain and high fever. I have repeatedly verified this fact, which affords an explanation,

in part at least, of the good effects of Iodide of Potassium on gout; since, as we have shown already, this salt promotes the excretion of Lead."—*Dr. Ringer.*

"Arthralgia Saturnina.—This is, according to Tanquerel, the second in frequency of the forms in which chronic Lead-poisoning manifests itself. In its course, there are many points of similarity with Lead colic. After prodroma similar or analogous to those of colic, or even without prodroma, there appear, more or less suddenly, tearing and burning pains, located in the region of the joints or of the muscles over them. These pains exhibit violent exacerbations and remissions until they completely disappear. They are not of a true neuralgic nature, since they do not follow the course of the nerves. The existence, also, of the characteristic pressure-points, as in the so-called joint neuroses (Esmarch), is not clearly established. The exacerbations are accompanied by cramps, i. e., tonic contractions of the muscles involved, which are very painful to the patient. These cramps are demonstrable by the hardening of the involved muscles and consequent position of the limb. The attacks are brought on by cold and exercise. The pains are diminished by pressure; inflammatory appearances, such as swelling, etc., over the joints, ligaments, and tendons, are entirely wanting.

"These pains occur by far most frequently in the lower extremities, especially over the knee, much less often in the upper extremities (elbow, shoulder). The muscles most frequently attacked in the extremities, are the flexors in the legs; and then the flexors in the thigh, in the bend of the hip. The same is true of the upper extremities; in the body, often the long dorsal muscles are affected, especially those in the region of the loins. In the thorax, all the muscles may be affected, and the resulting affection may, in severe cases, very closely resemble angina pectoris. Occasionally, the muscles of the neck are involved. The smaller joints and muscles about them are rarely affected.

"A tremor of the affected muscles is often noticed. The severity of the pain is often very great; and, under such circumstances, its reaction upon the general condition of the patient is felt. Otherwise this symptom shows less irregularity than Lead colic. Constipation and the peculiar character of the pulse are absent, and there is no fever.

"Its course is not unlike that of Lead colic. The pain suddenly ceases after many variations and remissions, and with the cessation of the pain the whole affection disappears, but there is the same tendency to relapse."—*Ziemssen.*

Therapeutic Individuality.

Digestive Organs.—"Owing to the slowness of its action, it is not [so well] adapted to acute cases; in chronic cases, it is indicated by speedy emaciation of the paralyzed parts, which are painfully contracted."—*Baehr*.

"Severe colic, contracted abdomen; bending backward."—*G*.

"Colic, the motor nerves are mostly affected; whereas, Colocynth attacks the sensory."—*S. Lilienthal*.

"Colicky pains proceeding from the spinal cord, with sensation as if drawing in from the abdomen to the back, with great depression of spirits."—*G*.

"Obstinate constipation, the fæces composed of lumps packed together like sheep's dung, with severe colic."—*G*.

"But the great sphere of Lead's usefulness is to be found in its influence over colic, with hard abdomen, great sensitiveness, relief only obtained by bending the body forward and drawing up the knees; the bowels obstinately constipated, and the abdominal walls retracted; 3d to 12th."—*Dr. W. Bayes*.

Neuralgic enterodynia, with sensation of retraction of the abdomen, the pains radiating to all parts of the body.

"Stools only once in eight or ten days, of scanty black fæces, where expulsion caused acute suffering."—*Dr. Gonzales*.

"Anus was violently constricted, drawn up."—*Dr. Brambilla*.

Extremely violent pains in the umbilical region; the abdomen is so contracted that the navel seems to adhere to the spine.

Complete loss of appetite, with excessive thirst.

Very great and inextinguishable thirst.

Nausea and vomiting, the stomach rejects everything.

"Eructations of an offensive odor, or sour eructations."—*Dr. Nenning*.

"Vomiting; frequent vomiting; constant vomiting, until fæcal matter is thrown up."—*Dr. Hause*. [Gastro-enteritis.]

"Vomiting of food; vomited very much at night, especially the early morning."—*Dr. VanTunzelmann*. [Acute and chronic gastritis.]

"Constant vomiting of a blackish substance; fæcal vomiting."—*Dr. Richter*.

Intestinal intussusception, with fæcal vomiting and great pain.

"Pressure and tightness about the stomach."—*Dr. Zeppenfeld*.

"Severe pain in the stomach, radiating to both groins, and striking down both limbs."—*Dr. Howe*. [Neuralgia.]

"Feeling as if a ball ascended from the epigastrium, along the thorax to the throat, where it causes a feeling of suffocation; at such times can neither speak nor swallow, with great anxiety."—*Dr. Tanquerel*. [Globus hystericus, in gouty subjects.]

Paralysis of the throat, with inability to swallow.

"Violent and severe constriction of the throat."—*Dr. Rabuteau*.

"Great dryness of mouth."—*Dr. Hause*. [Chronic indigestion.]

Sweetish metallic taste, from gastro-intestinal affections.

"Margin of tongue red, with brown color down center."—*Dr. Capello*.

Dry, red, glazed tongue, in chronic gastritis.

"Can not put out his tongue, it seems paralyzed."—*Dr. Long*.

Distinct blue line along the margin of the gums, or the gums slate-colored from the Sulphide of Lead.

"Fluids can be swallowed without difficulty; solids come back into the mouth again."—*G*. [Paralysis.]

"A sensation in the abdomen, at night in bed, which causes the patient to stretch violently for hours together; sometimes she must stretch in every possible direction, or she feels that she must do so; the will to do so can not do it, as if from paralysis."—*G*. [Irritation of sentient nerves.]

Urinary Organs.—Complete paralysis of the urinary organs from spinal degeneration.

"Much troubled with the urine, in not being able to pass it, apparently from want of sensation to do so; the will to do so can not effect it, as if from paralysis."—*G*.

"Urine dark colored and scanty, evacuated by drops."—*Dr. Ledetsch*.

"Urine dark colored, brownish, flocculent, sediment consisting of blood-corpuscles, and a large number of turbid cylinders."—*Dr. Rennet*.

Urine scanty, dark brown and highly albuminous. Albuminuria is a marked symptom in Plumbism, and Lead has cured many cases of albuminuria. (See action on kidneys.)

"Difficult micturition, vesical tenesmus; ineffectual urging to urinate."—*Dr. Tanquerel*. [Chronic paralysis of the sphincter vesicæ.]

Sexual Organs, Male.—Impotence, the sexual desire is completely lost, from chronic degeneration of the cord.

"Slight provocations produce erections with emissions."—*Hg*.

"Testicles drawn up—feel constricted."—*Hg*.

Testicles swollen, inflamed, and painful. (Locally, Acetate.)

Chronic gonorrhœa. (Locally and internally.)

Sexual Organs, Female.—Lead-poisoning has a powerful action upon the uterus and foetus; women working in Lead factories frequently abort. M. Paul says: "In one hundred and twenty-three pregnancies, seventy-three children were born dead; and of these, sixty-four were abortions, four premature births, and five born at the full time. Of fifty born alive, twenty died the first year, eight the second, seven the third, one later, and only fourteen reached the age of ten."

Amenorrhœa on the invasion of colic is a marked symptom.

"Menorrhagia with a sensation of a string pulling from the abdomen to the back."—*G.* [Very marked characteristic.]

"Cessation of the menses on the invasion of colic; but they re-appear after the paroxysm, or not again until the next period."—*G.* [Menorrhagia at the climacteric.]

"Leucorrhœa with a continual sense of drawing-in from the abdomen to the back."—*G.* [Chronic indigestion.]

Vaginismus, with emaciation and constipation.

"Feeling as if there was not room enough in the abdomen at night in bed, must stretch violently."—*Hg.*

In female diseases, the disposition to yawn and stretch is a marked characteristic of Lead, with obstinate constipation.

Milk scanty and watery, with great emaciation.

Induration and ulceration of the mammæ. (Locally.)

Respiratory Organs.—Pressure upon the chest, with difficulty in breathing, and short, dry, nervous cough, and much emaciation.

"Frequent cough with bloody expectoration."—*Dr. Howe.*

"Suppuration of the lungs, with purulent expectoration."—*Dr. Richter.*

Stitches in the chest and sides; chronic myalgia.

Heart.—Pulse weak and slow; generally about forty.

"Rush of blood to the heart during a rapid walk; anguish, cold sweat, stitches during inspiration; hypertrophy."—*Hg.*

Anxiety about the heart, and violent palpitation (arthralgia).

Skin.—"Jaundice; skin, white of the eyes, urine and stool, are all exceedingly yellow; has nausea and vomiting; very restless nights, with much exhaustion."—*G.*

The skin is very sensitive to the open air; chronic emaciation.

"Dark brown spots on the skin."—*Hg.* [In pregnancy.]

"Burning in the ulcers; small wounds become easily inflamed and suppurate; gangrene."—*Hg.* [Of great value locally.]

Decubitus. [Glycerole and Acetate are excellent in bed-sores.]

Dry, withered, yellow skin; chronic gastro-enteritis.

Locally, in Vaseline, Petrolina, or Glycerine, Lead is of great utility in eczema and in many forms of ulceration of the skin which discharge copiously; old, chronic ulcers.

Back.—Extreme emaciation, anæmia and great weakness.

"Tension in the neck extending to her ears when moving the head."—*Hg.*

"Stitches in the back, small of the back, and between the shoulders."—*Hg.*

"Tension in the neck to the ears, on moving the head."—*Lippe.*

"Chronic spinal meningitis, when the paralyzed parts soon fall away in flesh, and the limbs are painfully contracted."—*Hah.*

Extremities.—Complete paralysis, with excessive waste of tissue; or partial paralysis with rapid wasting away of the tissues, and obstinate constipation.

Paralysis, anæsthesia, and hyperæsthesia, in spinal diseases.

Arthralgic and neuralgic pains in the trunk and limbs.

"Jerking of the limbs, with numbness of limbs."—*Hermstaedt.*

"Violent pains in the extremities, beginning in the fingers, extending through the arms; then beginning in the feet, and finally affecting the whole body."—*Dr. Buchner.*

"Very numerous dilatations of the cutaneous veins of the forearm and under surface of the arm; chronic phlebitis."—*Hg.*

Wrist-drop, with trembling of hands. (Marked symptom.)

Hands and feet cold; total want of sweat; wrist-drop.

"Violent pain in the extremities, particularly evenings, affecting mostly the muscular part of the thigh."—*Dr. Fernside.*

"Pungent pains in the limbs, worse by paroxysms, so severe that he cries out; greatly aggravated at night."—*Orfila.*

"Pains in the limbs that rage most violently at night."—*Orfila.*

"Drawing, pressive pains in the sciatic nerve, down to the knee, with difficult walking, and great exhaustion; with cramps in the calves, and feet much swollen."—*Hg.*

Fetid foot-sweat. (Locally, Lead in Cosmoline.)

Nerves.—Sclerosis of the brain, or progressive muscular atrophy, alternating with the colic, and constipation.

"Epilepsy, chronic form. Before the spell, legs heavy and numb; tongue swollen, followed by long-lasting stupor."—*Hg.*

Sleepy during the day, and somnolency at night.

"Stupefaction; he falls down unconscious; vertigo on stooping."—*Hg.*

Great depression of spirits, especially with the colic.

"Meningitis chronic, when the paralyzed parts soon fall away in flesh, the limbs become painfully contracted."—*Hg.*

Cerebro-spinal meningitis, with early paralysis.

Great disposition to yawn, with restlessness.

"Great dryness of the hair, it falls off even in the beard."—*Hg.*

"Loss of memory, so that while talking often unable to find the right word."—*Dr. Schotter.* [Softening of the brain.]

Great heaviness of the head, intellectual torpor.

Violent headache; the pains are excessive.

"Headache as if a ball was rising from the throat into the brain."—*Hg.* [In chronic gastro-enteritis.]

Eyes.—Sclerotica very yellow, and severe pain in the eyeballs as if too large; in rheumatic subjects.

"Neuritis optici; papillæ swollen. Post mortem showed interstitial hyperplasia of connective tissue; the sheaths of the optic nerves were distended by fluid; the cerebro-spinal fluid was greatly increased, with brain anæmia."—*Hughes.*

"Hypopyon after iritis, nightly tearing pains in the eyes."—*Hg.*

"Eyeballs feel too large."—*Hg.* [Vision misty. Amaurosis.]

"Paralysis of the upper lids."—*Hg.*

Locally, one to two grains of the Acetate of Lead in an ounce of rose-water is of great value in acute, or especially chronic, granular conjunctivitis in children with gout.

Aggravation.—At night, while lying in bed; from drinking; especially aggravated by alcohol; and motion.

Amelioration.—From warmth, and rubbing.

PODOPHYLLUM PELTATUM.

Mandrake.

Habitat: America, etc. Tincture of the fresh root in October; Class III.

Antidotes.—Nux v., Lactic ac., Coloc. Lept. Salt increases its action.

Through the abdominal sympathetic nervous system, Podophyllum has four special centers of action:

- I. MUCOUS MEMBRANES. (STOMACH; SMALL INTESTINE.) *Inflam.*
- II. INTESTINAL CANAL. *Drastic Cathartic; Duodenitis.*
- III. SALIVARY GLANDS. *Copious Salivation.*
- IV. LIVER. *Hepatic Stimulant; Bile Greatly Increased.*

Mucous Membrane of the Stomach and especially of the Small Intestine.—Here we have the grand center for the action of Podophyllum. From six to ten hours after its administration, it acts as a drastic cathartic, producing copious watery stools, and in some cases vomiting. The vomiting, I believe, is mainly caused from irritation of the inflamed mucous membrane of the stomach, and not from any specific action upon the vagi; although it may have some specific action upon the filaments of the pneumogastric.

"In its action on mucous membranes, it ranks with Mercurius, Iris, Veratrum album, and other drastic cathartics. It is powerfully irritant to this tissue, especially in the digestive tract. It is not directly specific in its action upon the mucous membranes of the respiratory and urinary passages. It will, however, irritate and inflame any mucous surface when brought in contact with it, sometimes acting as a powerful escharotic. Of its power to cause inflammation of any and all portions of the mucous membrane, from the mouth to the anus, there can be no doubt. Such effects have been too often observed in practice, by all physicians who have had an opportunity to notice its action when administered in material doses. It even causes ulceration of this tissue, and may be said to act, as Dr. Frelich asserts of Mercury, as a solvent of the living solids."—*Dr. Hale.*

"The action of Podophyllum on the gastro-intestinal and hepatic system has been thoroughly investigated by Dr. Austie,

who has studied the action of this drug upon dogs and cats, and has found, that, in from two to ten hours after the injection of the alcoholic solution into the peritoneal cavity, and after the effects of the alcohol had ceased, Podophyllum excited vomiting and almost incessant diarrhœa.

"Dr. Austie does not usually describe the character of the stools; but in one experiment he states that they consisted in glairy mucus, and in two other experiments the stools were highly colored with what looked like bile. In many of the experiments, the stools contained blood. The animals suffered great pain and soon became exhausted.

"At the *post-mortem* examination, the œsophagus was healthy, but the stomach somewhat congested—induced, as Dr. Austie suggests, by the violent efforts at vomiting. The small intestines, especially at the lower part of the duodenum, were extensively ulcerated. The large intestines were but slightly inflamed. Although the injections were poured into the abdominal cavity, the peritoneum itself was not at all inflamed, not even around some unabsorbed granules of Podophyllin. The contents of the intestines were liquid. In all the instances in which the effect of the medicine on the heart and respiration is mentioned, respiration ceased before the heart stopped.

"From these experiments, it was evident that Podophyllin has an especial affinity for the small intestines, and chiefly for the duodenum."—*Dr. Ringer.*

Dr. W. S. Searle says: "It attacks the involuntary muscles, particularly those of the blood-vessels which supply the alimentary canal with its adjacent and contributing organs. In this way it affects the kidneys, uterus, and the heart itself. Of the involuntary sphincters, moreover, it causes a paresis.

"Beginning with the mouth and salivary glands, the result of such a paresis of the blood-vessels, would cause stasis, passive congestion. The capillaries are relaxed and over-distended, their lattice-like tissue opens, and out pour floods of serum and protoplasmic masses; epithelial activity is stimulated, and an imperfect, half-elaborated, and abundant secretion is the result. The same conditions produce like effects in the mucous membrane and glands of the stomach; and hence a similarly inefficient gastric juice is deluged upon the food. This, together with the directly irritant effect of the drug upon the surface of the stomach, induces nausea and vomiting. The same results are seen in the intestinal canal. It pours forth a superabundant secretion; the decomposition of the undigested food, and perhaps also the irritated

mucous membrane itself, furnishes the gas which distends the intestine and pains its irritated nerves, and hence the colic and the flood of faecal discharge. The involuntary sphincters are enfeebled, so that the rectum and vagina prolapse and the sphincter vesicae fails to perform its whole duty."

Dr. R. Hughes further adds: "These are very important results; they give us in Podophyllum another medicine to add to Arsenicum, Kali bichromicum, and Uranium nitricum, as acting specifically on the duodenum, and capable of controlling ulceration therein. And more, they give us a remedy truly homœopathic to enteritis, affecting the jejunum and ileum, which neither these nor Mercurius corrosivus are. The first enabled me once to cure a duodenitis which was resisting Arsenic. The latter shows a local affinity for the diarrhœa of typhoid, in which, and in simple enteritis affecting the same parts, the drug may do good service.

"No action on the rectum was manifested in the animals poisoned by Dr. Austie; but, in the human subject,—especially in children,—this part is readily affected by the drug, as shown by tenesmus and prolapsus recti, complicating the diarrhœa. The feeble affinity of Podophyllum for the colon, makes it unsuitable for ordinary dysentery, which has its seat there. But, when dysenteric diarrhœa appears to depend on inflammatory irritation of the rectum, it will give rapid relief. Such a malady is not uncommon in children, and is generally accompanied by painful prolapse of the rectum at each stool. In simple prolapsus ani from debility, in childhood, beautiful results are almost always obtainable from minute doses of the drug."

Dr Moore says: "Lactic acid is an effectual antidote to its effects. Fifteen grains have been given and immediately afterward a draught of sour milk, and the effect of it has been *nil*. Sugar antidotes it somewhat. Acetic acid does not affect it; but Salt greatly increases its action."

Salivary Glands.—All writers agree that Podophyllin will cause salivation. The Eclectics say it will produce severe ptyalism. If the patient has ever been salivated with Mercury, Podophyllin is more apt to produce salivation with profuse flow of saliva.

Liver.—Podophyllin is one of the few remedies that is an actual and certain hepatic stimulant, increasing markedly the biliary secretion. The hepatic stimulants are, according to Dr. Rutherford, "Podophyllum, Aloes, Colchicum, Euonymin, Iridin,

Sanguinarin, Ipecacuanha, Jalap, Benzoate of Sodium, Sodium phosphate, Hydrochloric acid, Mercury, Salicylic acid, and Ammonium. Moderate hepatic stimulants are, Rhubarb, Leptandrin, Sodium and Potassium sulphate, Calabar bean, Baptisin, Phytolaccin, Ammonium phosphate, Hydrastin, and Juglandin. Those of very feeble power are, Croton oil, Taraxacum, Scammony, Rochelle salts, Sodium chloride, Potassium bicarbonate, and Jaborandi."

"Dr. Percy says: 'Soon the influence is felt in the small intestines, and unmistakable sensations of the secretion of bile are experienced.' What the nature of the sensation is that reveals so important an operation, is not described; but, whatever it may be, we should regard it as less indicative than the 'bilious-looking' evacuations which are said to follow, of an increased discharge of bile into the intestine. The cholagogue action of Podophyllum is, however, maintained by numerous writers. Thus, Dr. Gardiner knows 'no other substance which so certainly produces bilious stools, when the liver is full of bile;' and, according to Dr. Ward, 'it never fails in its cholagogue action,' and Dr. Ramskill is 'almost tempted to say that there is no real cholagogue known in medicine, except Podophyllin.'

"Admitting the facts to be as they are stated, they do not imply that the medicine exerts a direct action upon the liver any more than the salivation excited by its acrid taste proves its specific action upon the salivary glands. It is the physiological function of the liver to secrete bile more freely when the duodenum is irritated, and particularly when the irritation is of that degree and kind which occasions a copious exhalation of serum and mucus from the lining membrane of the upper part of the small intestines. The conclusion of Dr. Garrod, that Podophyllin, 'often produces actions from the bowels containing abundance of biliary matter, but this is probably more from its causing an emptying of the gall-bladder than from its augmenting the secretion of this fluid,' is certainly more correct than the hypothesis which attributes a true cholagogue property to Podophyllin. But, since the increased discharge of bile may occur without any mechanical compression of the gall-bladder through the act of retching or vomiting, we are disposed to attribute that discharge, in part at least, to an irritation of the duodenum.—*Stille*.

Mr. Moore says: "Its direct sphere of action is on the entire portal system; and indirectly all other systems connected with that either by nervous or vascular ties. While the liver and gall-bladder are directly acted upon by this medicine specifically, and

led by it to discharge their contents, great relief is given to the lungs and the brain when oppression of these vital organs is connected with inactive and irregular action of the liver.

"Torpidity of the liver, rather than vascular, is the chief sphere of it; in other words, a non-secretory state, or a state of non-expulsion of the secretion of bile, is the indication for it, and this state is indicated by sallow complexion, furred tongue, and constipation.

"The curative dose in such cases must be brought near the physiological; viz., the 10th, 5th, or 4th of a grain, given once or twice a day."

Dr. Hale says: "I believe Podophyllum to be a direct stimulant of the liver. The primary action of Podophyllum is generally to cause vomiting and diarrhoea of undoubted bilious matters. I have examined, with the most improved chemical tests, the stools caused by Podophyllum in cases of *jaundice*, which, before its administration, were completely free from bile, and found that the green color was actually due to that secretion. The patient felt the action of the drug upon the liver before it nauseated or caused any intestinal irritation. . . . The powerfully irritating effect which this drug has upon the secretory functions of the liver, enables it to cause such excessive action as may pass over into passive congestion, chronic inflammation, suspension of function from exhaustion, suspension of biliary secretion, and even retention of that fluid."

Gall-bladder.—I believe that Podophyllum so increases the expulsive power, or peristaltic action, of the gall-bladder, and especially that of its duct, as to produce actual vomiting of gall into the intestinal canal, and that this is the reason of its great utility in the expulsion of gall-stones and inspissated bile. To get this expulsive action with the increased secretion of bile, we must give toxic doses of from one-half a grain to five grains of Podophyllin; but usually about one to two grains will be found sufficient.

Drs. Rutherford and Vignal say: "Podophyllin, when injected into the duodenum of a fasting dog, increases the secretion of bile. It is inferred that the increased biliary flow in the preceding experiments was due to increased *secretion*, and not merely to expulsion, because the gall-bladder had been well emptied by compression, and the cystic duct had been clamped. Moreover, the increased flow was far too prolonged in some of the experiments to be attributable to spasms of the larger bile-ducts; therefore an increase in the secretion must have been the case. When

the bile is prevented from entering the intestine, Podophyllin acts less powerfully and less quickly than when bile is introduced. Augmentation of the biliary secretion is most marked when the purgative effect is not severe; indeed, if the purgative action be very decided, diminution and not augmentation of the biliary secretion may be the chief result. Podophyllin purgation is apparently due to local action; for the irritation of the intestinal mucous membrane extends gradually from above downward. The bile secreted under the influence of Podophyllin, although it may be in increased quantity, contains as much of the special biliary matter as bile secreted under normal conditions."

Therapeutic Individuality.

Abdomen and Stool.—The great characteristic for Podophyllin is morning diarrhœa; stools watery, green, undigested or slimy, with severe colic, and prolapsus ani. Sulphur has the same, without the pain, but has marked and excessive excoriation of the anus added; goneness in epigastrium.

Severe colic every morning, with stools of mucus and blood.

"Diarrhœa early in the morning, which continues through forenoon, followed by a natural stool in evening."—*Dr. Williamson.*

Liquid-green stools with colic, early morning, with fainting.

"Black stools, only in morning."—*Hale.* [Chronic diarrhœa.]

"Dysenteric diarrhœa, depending upon inflammatory irritation of rectum."—*Hughes.* [More useful in diarrhœa than dysentery.]

"Severe straining during stool, with emission of much flatulence; mucous stools, with spots and streaks of blood; thirst but no appetite."—*Dr. E. P. Angell.*

"Diarrhœic and dysenteric stools; pain preceding an evacuation, relieved by pressure."—*Dr. C. Miller.* [Cholera infantum.]

"Yellow, watery stools, with meal-like sediment."—*Dr. Fairbanks.*

"Stools watery, gushing, profuse green, with sudden urging, often painless; offensive, worse in hot weather."—*Hah.* [In cholera infantum in very hot weather, Podophyllum is of great value.]

"Stools chalk-like, offensive, with gagging; clay-colored; black, watery, profuse; worse mornings."—*Dr. Farrington.* [Fainting.]

Constipation, stools clay-colored; for want of bile, with an excessively torpid liver; jaundice and great languor.

The first remedy to be thought of in prolapsus ani; especially if there are hæmorrhoids and morning diarrhœa.

"Child lying upon mother's lap, moaning, eyes half closed; rolling head; stools offensive and dark colored."—*Dr. C. C. Smith.*

"Prolapsus ani, particularly following parturition; accompanied with exhaustive, frequent stools, worse mornings."—*Raue*.

"Enteritis folliculosa; larger stools than are to be expected from the amount of the ingesta taken, with excessive fetor."—*Dr. E. A. Lodge*. [Cholera infantum.]

Colic of a high grade; the pain originating from a depraved and excessive secretion caused by a morbid state of solar plexus.

"The pains in the abdomen and back are worse during stool, and continue after."—*S. Lilienthal*. [Enteritis.]

"Flatulence during dentition, with green, sour stools in the morning."—*G*.

Diarrhœa with sensation as if everything would drop through the pelvis, with great sinking at the epigastrium.

"Sensation of heat in the bowels accompanying stool."—*Dr. Williamson*.

Liver.—Vomiting with very severe spasms of the stomach; vomits bilious matter mixed with blood; gastro-enteritis.

"Biliousness, with nausea, giddiness; bitter taste and risings; tendency to bilious vomiting and purging, dark urine."—*Hughes*.

"The patient is constantly rubbing and shaking with his hands, the hypochondriac region."—*Dr. Williamson*.

"Food turns sour, with belching of hot flatus, which is very sour."—*Raue*.

"The disturbance of the nervous ganglia is only in consequence of the excessive hepatic action."—*S. Lilienthal*.

"Jaundice with hyperæmia of liver; fullness, soreness, pain, alternate constipation and diarrhœa."—*Hg*. [Malarial districts.]

Hollow, sinking sensation in epigastrium; portal congestion.

Gall-Stones.—It has an extensive reputation for the expulsion of gall-stones. The calculi are removed by the excessive amount of bile secreted, and the increased peristaltic action of the gall-bladder and cystic duct, vomiting, as it were, the foreign body. To get this action, toxic doses must be given of the active principle, Podophyllin, in from one to five grain doses. Preceding the exhibition of Podophyllin, Olive oil should be taken three times a day for one week, in large quantities, at least one-half a pint at a time, and more if it can be taken. With the Podophyllin, one to two drachms of Chloroform may be combined with great usefulness. If the Podophyllin does not expel the biliary calculi on first trial, precede its administration with a large dose of Calomel (from ten to twenty grains), and the second attempt will bring the desired reward.

Mouth and Stomach.—"A feeling as if the tongue, and sometimes the throat and the palate, had been burned."—*E. A. Murphy, M. D.*

Tongue full and broad, with a pasty coat in the center, and shows imprints of teeth, from portal congestion.

Tongue red, with uniformly erect papillæ; gastro-enteritis.

Foul, offensive breath, with a putrid taste, and salivation.

Total loss of taste, could not tell sweet from sour.

Great thirst for large quantities of cold water; gastritis.

Great desire to press the gums and teeth together, in cholera infantum.

Head.—"Rolling of the head, with moaning in sleep, eyelids half closed."—*Dr. Miller.* [Hydrocephaloid.]

Hydrocephaloid diseases of children after cholera infantum.

Great despondency from bilious and bowel troubles.

Vertigo from gastric and bilious diseases; indigestion.

Great loquacity; sweats profusely while sleeping.

Sexual Organs, Female.—Sensation as if genitals would come out during stool, with chronic diarrhœa.

Delayed menstruation, with ovarian pains.

Prolapsus uteri after over-lifting; after labor; prolapsus ani.

"Dull, unpleasant pain or weight in the hypogastric region."

—*Dr. Scudder.* [From prolapsus uteri.]

Extremities.—"Sharply defined ache in the sacro-ischiatic foramina, with tenderness on pressure."—*Dr. Scudder.* [Sciatic rheumatism.]

"Let a patient complain of pain in the course of the ulnar nerve, and I always think of Podophyllin."—*Dr. Scudder.*

"Fullness of the superficial veins."—*Dr. Scudder.*

Fever.—Bilious fever, with much vomiting of bile; bilious diarrhœa; tongue coated yellow, and great thirst.

Intermittent fever where bilious symptoms predominate.

Great headache; excessive thirst; falls asleep and perspires profusely.

Aggravation.—In the morning, from 2 to 4 o'clock, and from cold.

Amelioration.—In the evening; from external warmth.

POLYPORUS OFFICINALIS.

Larch Agaric.

Habitat: Europe, America. Tincture of the fresh fungi, Class III.

The *Polyporus pinicola*, being so similar in its action, is included under the above heading. Through the abdominal sympathetic, *Polyporus* has three special centers of action:

- I. GASTRO-INTES. C. *Cong.*; *Stools Watery, Mucous, and Bloody.*
- II. LIVER. *Congestion; Torpidity; Jaundice.*
- III. CEREBRO-SPINAL SYSTEM. *Effects Similar to Malaria*

Gastro-Intestinal Canal.—*Polyporus* acts upon the mucous follicles of the whole gastro-intestinal canal, affecting more particularly those of the small intestines, increasing their secretions, and causing the watery portion of the blood to be poured out into the intestinal canal so as to produce not only mushy but copious watery stools. It also affects the large intestines, as shown by the mucous and bloody stools, and has been found very useful in diarrhoea and dysentery, especially of a chronic form.

Liver.—This is the grand and special center for the action of *Polyporus*. There are congestion and torpidity, with all the accompanying symptoms. The hepatic cells do not perform their function, that of eliminating the excrementitious substances of the blood; consequently we have jaundice, great languor, and a dull, sleepy condition. The solid constituents of the bile are increased, and the fluid portion diminished. In diseases that call for this drug, the bilious symptoms must predominate.

Therapeutic Individuality.

Fever.—The functions of the solar plexus are so influenced as to produce regular periodical fever; type quotidian or tertian; better in the quotidians.

Sporadic and endemic (not epidemic) intermittents, in the spring, summer, or winter, are the cases that call for this remedy.

During apyrexia, the patient is far from being well; has headache; bitter taste in the mouth; tongue coated white or yellow;

loss of appetite, and, more or less, pains in the abdominal viscera, especially the liver, with great lassitude.

Head feels light and hollow, with deep frontal headache and much faintness; in malarial intermittents.

Chills alternate with the fever several times a day.

Thirst not excessive; often has nausea and vomiting.

Intermissions very short; almost continued fever.

More or less organic lesions of the liver and abdominal viscera; the skin very much jaundiced, with night sweats.

Chill light and short; fever long, and followed by slight perspiration. In some cases, the perspiration is copious.

Great languor, with severe aching pains in the large joints, and bones of the back and legs, from malaria.

Great aching distress in all the large joints; malarial fever.

More adapted to endemic sub-acute and chronic cases.

Periodical headache and facial neuralgia from torpid liver.

Sick-headache, from organic lesions of the liver.

Hectic chills and fever in phthisis, with copious night sweats.

Digestive Organs.—Perfect loss of appetite; pale and anæmic. (From chronic malaria.)

Sometimes has ravenous appetite; but more often none.

Feeling in the epigastric region of great faintness or all-gone feeling, probably from biliousness.

Burning distress in stomach, with dragging pains in the liver.

The aching pains in the region of the liver were very severe, and extended over the whole dorsal region; portal congestion.

Constant distress in the umbilicus, with a feeling as if the small intestines were being tied in knots; summer diarrhœa.

Sudden distress in the hypogastric region, with great desire for stool; light-colored, papescent stool, followed by dragging pains in the liver, and sinking in epigastrium.

Lienteria; stools undigested; chronic anæmia.

Loose, papescent stools without pain; chronic diarrhœa.

Stools of pure mucus; or mucus, blood, and bile, with great faintness and distress in the solar plexus after stool, from portal congestion. (Marked characteristic.)

In chronic diarrhœa and dysentery, many physicians have had fine results. It closely resembles *Leptandra*.

Stools that run from the bowels with great force, composed of bile, mucus, and black fecal matter, preceded by great burning pain and distress in the epigastrium, right lobe of liver, and umbilicus, and followed by the same symptoms of portal congestion.

Urine.—Very high colored and scanty (bilious) urine.

Generalities.—Great physical prostration; the patient can hardly stand up.

Feels weak and depressed, and indisposed to any exertion, physical or mental. (From malaria or chronic diarrhœa.)

All the joints of the body and limbs ache terribly.

Great disposition to yawn and stretch, showing that the posterior portion of the cord is much involved.

Very restless and uneasy all night; the sleep is disturbed by bad dreams, from indigestion.

Phthisis, with copious night sweats and watery diarrhœa.

The patient can not bear the open air, it makes him so chilly; takes cold from the least damp change.

In chronic bowel diseases and bilious intermittents, is found the most useful sphere for Polyporus. (Excellent in jaundice and biliousness.)

Aggravation.—Morning and forenoon.

Amelioration.—Eating, from acids, and at night.

PSORINUM.

Psora Sicca.

The sero-purulent matter contained in the Scabies vesicle. Trituration.

Through the great vegetative nervous system, Psorin has two special centers of action:

- I. LYMPHATIC GLANDULAR SYSTEM. *Acrid Secretions.*
- II. CEREBRO-SPINAL SYSTEM. *Profound Debility.*

Lymphatic System.—The lymphatics of the skin and limbs seem to be mostly affected by this remedy. It also produces profound debility of the animal nervous system, vitiating the blood and producing a cachectic dyscrasia generally.

Therapeutic Individuality.

General Indications.—Diseases where Sulphur is indicated but fails to act.

"When well-chosen remedies do not act, and the patient shows a psoric taint, give Psorin."—*Hg.*

"Great weakness; debility from loss of fluids, or remaining after severe acute diseases."—*Lippe.* [Of great value.]

"Its great field is debility, independent of any organic disease."—*J. B. Bell.*

Head.—"He is anxious, full of fear, and melancholic."—*Hah.*

"Very much depressed; very irritable, and thinks always of dying."—*Hah.*

"The patient is hopeless, and despairing of recovery."—*Lippe.*

"Vertigo with headache."—*Lippe.* [Head full and heavy.]

Great congestion of the brain, relieved by nosebleed.]

"Pains all through the head, as if a hammer were beating in the head."—*Hah.*

"Fullness of the head during mental labor."—*Hah.*

"Chronic headache, aggravated at every change, in the night while sleeping; she is awakened with pain."—*W. P. Wesselhoeft.*

"Headache as if from a heavy blow on the forehead, waking him at night."—*Lippe.* [Humid, fetid eruptions on head.]

"Headache as if the brain was too large for the skull, in the mornings, relieved by washing."—*Hah.*

"Dry, or moist, fetid, loathsome eruptions on the head."—*Hah.*

Pimples and ulcers on the face, in young people.

Corners of the mouth sore; often ulcerate.

Eyes.—"The eyes become gummy."—*Hah.* [Chronic ophthalmia.]

"Fiery sparks before the eyes."—*Hah.* [Aversion to light.]

Ears.—"Otorrhœa, with discharge of fetid pus."—*Hah.*

"Dry coryza, with obstruction of tough mucus in the nose."—*Hah.* [Often accompanied with chronic non-suppurative catarrh of the middle ear.]

Digestive Organs.—"Great hunger without appetite."—*Hah.*

"Eructations tasting like rotten eggs."—*Hah.*

"Constant nausea during the day, inclination to vomit."—*Hah.*

"Pains in the abdomen after eating; flatulency and tendency to diarrhœa, relief when flatus passes off."—*Dr. Gross.* [Secretions very fetid.]

Stools liquid, mucous, or bloody, and excessively fetid; cholera infantum.

"Very offensive dark brown, fetid stools."—*P. P. Wells, M. D.*

"Stool dark brown, very fluid and foul-smelling."—*Hah.*

"Green bilious diarrhœa, mixed with mucus."—*Dr. Gross.*

"Unpleasant burning in rectum."—*Dr. Gross.* [Hæmorrhoids.]

Sexual Organs, Male.—No sexual desire, with aversion to coitus.

"Impotence, want of emission during coitus."—*Hah.*

Chronic blenorrhœa (gleet), or chronic prostatitis.

Sexual Organs, Female.—Menses delayed and scanty.

Fetid, lumpy leucorrhœa, with great debility.

"During pregnancy; congestions; fœtus moves too violently; abdomen tympanitic; nausea and vomiting."—*Hg.*

"Mammæ swollen and painful; pimples oozing an acrid fluid that burns and excoriates the glands."—*Hg.* [Secretions very acrid.]

Respiratory Organs.—"Suffocation and crawling sensation in the larynx, producing a paroxysmal, dry, hacking cough."—*Hah.*

"Dry, hard cough, from tickling in the trachea."—*Hah.*

"Dry, hard cough, with sensation of great weakness in the chest."—*Hah.*

"Cough, with expectoration of green mucus; especially in the morning when waking up, and evenings; it sticks firmly, raised with great difficulty."—*Hah.*

"Great want of breath in the fresh air."—*Hah.*

Anxious dyspnœa with palpitation, in hydrothorax.

Asthma; chest expands with great difficulty, worse from sitting.

"Cutting as of knives in the chest, or as if everything were torn."—*Hah.*

"Ulcerative pain in chest under the sternum."—*Hah.*

"The glands of the neck swollen on both sides; painful to the touch as if bruised."—*Hah.* [Chronic induration of lymphatics.]

Back.—"Excessive backache."—*Hah.*

"When breathing, frequent stitches from the back toward chest."—*Hah.*

"Great weakness and pain in the small of the back."—*Hah.*

Typhoid fever, where profound debility is a marked symptom.

Limbs.—"Weakness in all the joints as if they would not hold together."—*Hah.*

"Tearing pains in the arms."—*Hg.* [Chronic rheumatism.]

"Trembling of the hands."—*Hah.* [In spinal affections.]

"Pain in hip-joints as if dislocated, worse when walking."—*Hg.*

"Pain in legs, especially on tibia, and soles of feet, as from over-exertion in walking; legs very restless."—*Hah.*

"Malaise ; he feels tired out ; little labor exhausts him."—*Hah.*

Skin.—"Inveterate cases of itch ; repeated outbreaks of single pustules after the main eruption seems gone."—*Hg.*

"Urticaria after suppressed itch, comes after every exertion."—*Raue.*

"Dry, tetter-like eruptions in the hollow of the knees."—*Rauc.*

"Moist,itching condylomata."—*G.*

"On the face, hands, back, and legs, an itch-like eruption appears, of vesicles filled with lymph ; painful to touch."—*Hah.*

"Eruption of vesicles, quickly filling with yellow lymph ; painful like sores to the touch."—*Hah.*

"Itching over the body ; when rubbed, papules and vesicles arise."—*Hah.*

"Profuse colliquative night sweats."—*Lippe.* [From debility.]

"Profuse perspiration from the least exertion, and at night, with great debility."—*J. B. Bell.*

Copious perspirations from exercise, or night sweats in cachectic conditions, with profound debility ; and the patient is troubled with much chilliness, after weakening diseases.

Aggravation.—From motion and evenings.

Amelioration.—Morning, and during rest.

PULSATILLA NIGRICANS.

Wind Flower.

Habitat: Europe, etc. Tincture of the whole fresh plant. Class I.

Antidotes.—Ign., Nux vom., Coff., Cham., Acon., Bell., Merc., Acids.

Through the cerebro-spinal nervous system, Pulsatilla has twelve special centers of action:

- I. MUCOUS MEMBRANES. *Catarrhal Inflamm.*; *Mucorrhœa*.
- II. EYES. *Catarrhal Inflammation*; *Copious Mucorrhœa*.
- III. EARS. *Sub-acute Inflamm.*; *Catarrhal Deafness*; *Otalgia*.
- IV. STOMACH. *Indigestion*; *Acidity*; *Yellow-Coated Tongue*.
- V. INTESTINES. *Flatulence*; *Passive Mucous Diarrhœa*.
- VI. URINARY O. *Catarrhal Inflammation*; *Mucus in Urine*.
- VII. SEXUAL O., MALE. *Orchitis*; *Varicocele*; *Neuralgia*.
- VIII. SEXUAL O., FEMALE. *Ovaritis*; *Scanty, Late Menstruation*.
- IX. VENOUS SYSTEM. *Acute Varicosis*.
- X. SYNOVIAL MEMBRANES. *Rheumatico-Gouty Inflammation*.
- XI. SKIN. *Urticaria*; *Miliary Eruption*.
- XII. CORD (POSTERIOR.) *Chilliness*; *Hyperæsthesia*; *Neuralgia*.

Mucous Membranes.—Pulsatilla is in the hands of the Homœopathic physician more often than any other remedy in our Materia Medica, and has made more cures than any other one used. This being a fact, its medicinal action should be by so much the more thoroughly studied. Its action upon all of the mucous membranes is, first, to produce a catarrhal inflammation, with unnatural dryness of the surface, which is soon followed by copious and profuse mucous discharges, rarely going on to ulceration. If these discharges are suddenly arrested, the serous and fibrous tissues take on an active inflammation. Its effects are erratic in nature; a blenorrhœa of one mucous surface may change to another; for instance, a leucorrhœa may change to a bronchitis or a conjunctivitis.

"In the mucous membranes, Pulsatilla sets up the catarrhal process. The dry stage is short and little marked (except some-

times in the respiratory tract); and much mucous secretion is the rule. As symptoms of this condition, the pathogenesis gives us, in the *alimentary canal*, raw throat; tongue furred white; breath fetid; taste deadened or variously altered (bitter, sour, salt, even putrid); foul or acid eructations, nausea, and inclination to vomit; sensation as if the stomach were spoiled, weight and pressure in the stomach, and mucous diarrhœa; in the *respiratory tract*, green or yellow discharge from the nose, and cough with much expectoration (often tasting salt or bitter); in the *urinary mucous membrane*, frequent micturition, with tenesmus, and a jelly-like sediment in the urine."—*Hughes*.

Eyes.—"Pulsatilla manifests its affinity for the eyes mainly by affecting the lids, which it inflames greatly, causing them to be agglutinated in the morning, and to pour out quantities of mucus. It causes also, however, considerable aching pain in the eyeballs, and many disturbances of vision. Temporary obstructions often occur, fiery circles or haloes are seen; and after sleep there is a feeling as if something were hanging over the cornea which could be wiped away. The sensation is only subjective, and disappears spontaneously.

"It was for diseases of the eyes, as I have said, that Pulsatilla was first brought prominently forward by Stoerck. The more modest claims to service here warranted by our experiments can amply be sustained. Pulsatilla is most useful in affections of the lids. In recent blepharophthalmia, with profuse lachrymation and Meibomian secretion, it is the best medicine. It will blight a sty almost as effectually as Belladonna will a boil; but it will not prevent their tendency to recur. For the twitching of the eyelids, with dazzling of sight, I know of no remedy so useful as Pulsatilla. The aching of the eyeballs produced by Pulsatilla is rather such as occurs in some forms of headache than in an idiopathic affection."—*Hughes*.

Ears.—"The ears suffer from the action of Pulsatilla even more than the eyes do. In some provers, the concha and external meatus were inflamed, with purulent discharge. In others, deafness, generally with noises of various kinds, was present. The seat of the latter symptom is indicated by Dr. W. H. Burt, who suffered from 'snapping noises in the ears, and drawing pains along the right *Eustachian tube*.' Others yet suffered from more pain in the ear, generally of a jerking character.

"Few medicines are used in our practice in affections of the ears more frequently than Pulsatilla. Its curative virtues are

most evident in the earache which so often troubles children; and which is generally a sub-acute inflammation of the middle ear; and in recent catarrhal deafness with noises in the ears. But it has also been used with good results in acute inflammation of the auricle and meatus, in neuralgia of the nerves of the ear, and in non-serofulous otorrhœa with deafness, when the discharge is thick."—*Hughes*.

Digestive Organs.—On the organs of digestion, an overdose of Pulsatilla causes nausea, vomiting, and mucous stools.

"It is probable that the secretions of the stomach and small intestine are modified, since digestion is so decidedly retarded by the action of Pulsatilla, and presents so many abnormal features, such as perverted taste, regurgitation of food or flavor, flatus, pain, etc., as well as that of the lower intestine, as witness the stool covered with mucus, and the mucous diarrhœa."—*Dunham*.

"Pulsatilla plays an important part in gastric disorders. In dyspepsia, whether acute or chronic, the prominence of *mucous* derangement—i. e., white tongue, nausea with little vomiting and absence of much pain—indicates the medicine in preference to others, such as Nux vomica. The tongue calling for Pulsatilla is thickly coated with a white, roughish fur, very different from the milky white of Antimonium crudum, or the yellowish-brown of Kali bichromicum. The acute dyspepsia in which Pulsatilla is generally curative, arises from the indigestion of fat or other rich food, as the pork specified by Hahnemann. In chronic gastric disorders, it does better when heartburn than when water-brash is present, in which it again contrasts with Nux. But Dr. Marston says, that, when the fluid of water-brash is sour or foul tasting, Pulsatilla is quite equal to its removal. Dr. Bayes considers the drug especially indicated in dyspepsia with a great feeling of tightness after a meal, so that the clothes must be removed or loosened. [The indication noted by Dr. Bayes is the most characteristic of Pulsatilla.] The diarrhœa for which Pulsatilla is suitable is a passive mucous flux, with little pain, occurring chiefly at night."—*Hughes*.

Urinary Organs.—We have increased blood-pressure in the kidneys, followed by copious watery urine; or catarrhal inflammation of the kidneys and bladder, with copious mucous discharges; brown, and voided with great difficulty.

Sexual Organs, Male.—In the male, we have acute orchitis, with inflammation of the spermatic cord. Varicocele is also one

of the effects of this drug. "In the male subject, you will find it invaluable in acute orchitis, however caused; and in prostatitis, with Thuja. It is one of the medicines (with Graphites and Rhododendron) which have cured hydrocele."—*Hughes*.

Sexual Organs, Female.—This is the most useful field for the use of Pulsatilla. Its action upon the ovaries, uterus, and mammæ, is most wonderful. Although the drug, pathologically speaking, does not show many changes, therapeutically, no one remedy can equal it. "Its fullest powers are displayed in the female organism. When, in girls of mild disposition, puberty is unduly delayed, or the menstrual function is defectively and irregularly performed; when they grow pale and languid, and complain of headache, chilliness, and lassitude, Pulsatilla, with or without Ferrum, is a most excellent remedy. When the menses have been suppressed by a chill, if the time for Aconite has gone by, Pulsatilla will generally restore the discharge. This property of the drug, Stoerck had indicated. I believe it to be as good a remedy for ovaritis as it is for orchitis, and far superior to most of those ordinarily recommended. In simple mucous leucorrhœa, it is often curative; and in dysmenorrhœa, when the little blood that flows is black and coagulated, and when dysenteric diarrhœa is apt to appear at the periods. It presides in a most beautiful way over the function of parturition. Given daily for a month or so previously, it greatly facilitates the process in women whose labors are tedious and difficult. In labor itself, when the pains are irregular, tardy, and defective, yet Ergot is hardly called for, Pulsatilla will often do good service. And there are several cases recorded, which leave little doubt but that, in false presentations, Pulsatilla favors spontaneous version; which, it must be remembered, sometimes occurs of itself, and may therefore well be aided by a specific medicine. [I have had two well-marked cases where Pulsatilla changed a side presentation to that of the head, within two hours of its administration.] After labor, it is very useful in promoting the secretion of milk, when this is deficient. Altogether, the weaker sex has much for which to thank Homœopathy in its gift of Pulsatilla.

"Dr. Bayes, whose article on Pulsatilla is one of the best in his book, speaks of its predominating action on the left side of the body, and recommends it accordingly in clavus, hemicrania, and infra-mammary pain having this seat. He also advises it in constitutional disturbance in children, associated with copious excretion of urate of ammonia in the urine, an experience which I have often confirmed."—*Hughes*.

Pulsatilla produces an atonic state of the ovaries, with much hyperæsthesia, scanty and delayed menstruation, and a general tendency to neuralgia. From its therapeutic use, we are perfectly satisfied that it produces congestion, inflammation, and hypertrophy of the ovaries, with all their attending symptoms.

Through the excito-motor nervous system, Pulsatilla produces a state of the nervous system identical with hysteria; and it has proved of great value in this condition.

Venous System.—On this system, it has a special action, causing a state similar to varicosis. "In affections of the veins, Pulsatilla occupies much the same ground as Hamamelis. It is superior to that medicine in crural phlebitis following parturition, but yields to it in venous hemorrhages. In piles and other varicoses,—as of the spermatic cord or the lower extremity,—Pulsatilla will act well when the general condition of the patient seems to call for its use. It is recommended even in dilatation of the right ventricle."—*Dr. R. Hughes.*

Synovial Membranes.—"Pulsatilla seems to fall just short of the true serous membranes, but compensates itself by acting powerfully upon their near relatives, the *synovial membranes*. The joints chiefly affected are the knees, the ankles, and the small joints of the hands and (most especially) the feet. The rheumatico-gouty action thus displayed is also manifested in pains of divers kinds in the nape of the neck and extremities.

"The action of Pulsatilla upon the joints has led to its use in suitable forms of gout and rheumatism. The disorder of digestion which lies at the foundation of gout is just that to which Pulsatilla corresponds. Hence, it is well calculated to effect radical benefit in recent cases of this malady. In the paroxysm itself, it is generally superseded by Colchicum; though I know of one case in which the timely administration of Pulsatilla has several times seemed to blight an incipient attack. It is said to be indicated especially when the pains fly from place to place. In sub-acute rheumatism, with little or no fever, occurring in delicate persons, it is extremely useful, especially when the knees, ankles, or small joints of the hands and feet, are affected. In idiopathic inflammations of these joints, moreover, Pulsatilla is the best remedy while the mischief is yet recent. But, perhaps, the form of Arthritis to which Pulsatilla most closely corresponds is *rheumatic gout*, using this term to signify the independent malady so named. Dr. Fuller has pointed out the much preponderating frequency with which the female sex is invaded by this disorder, and its inti-

mate relations with menstrual derangement. Pulsatilla is almost a specific in its acute form, and, even in chronic cases, may sometimes be given with advantage in the 6th or 12th dilutions."—*Dr. R. Hughes.*

Skin.—"It causes eruptions on the back, legs, and ankles, of a dark bluish-red color, attended, through the day, with more or less itching; but at night the itching is most intolerable. The eruption stands out prominently from the skin, and is from the size of a three-cent piece down to a miliary eruption resembling measles. Urticaria is a marked symptom of Pulsatilla."—*Hale.*

Spinal Cord.—By its action on the *excito-motor nerves*, it causes a state of erethism, twitching, tremors, and the motions of the body are perverted.

Through the nerves of sensation, it causes frequent chilliness, especially in the afternoon, hyperæsthesia, and neuralgia, especially of the organs of generation and of the bowels.

Dr. I. S. P. Lord says: "Pulsatilla is decidedly and emphatically a posterior-spinal irritant, and hence, through the sensory nerves, has more intimate relations with the sympathetic system than any other spinal irritant. It seems to reach over into the sympathetic, as does Arsenicum into the spinal. It has, besides, some specific action on the pneumogastric nerve, and upper sympathetic ganglia. It seems to act specifically on the anterior part of the cerebrum, at the base of the brain; hence the sensation of falling."

"Pulsatilla, in common with some of its analogues, has a specific power to cause those *reflex* irritations of the nervous system which we so often see in disease. It may induce nausea and vomiting by its action on the uterus; palpitation of the heart, from this and other causes; functional affections of the eyes, amaurosis and the like, from distant irritations; vertigo, headache, toothache, paralytic sensations in the extremities, etc., all from causes remote from the *apparent* seat of the disease."—*Hale.*

Lethal doses of Anemonin cause hebetude of mind, stupor, coma, dilated pupils, and convulsions. The heart's action is lowered, and the temperature is reduced.

Therapeutic Individuality.

General Indications.—Pulsatilla is especially adapted to females with blue eyes, very affectionate, easily excited to tears, with fitful moods, of a very yielding disposition, lymphatic constitution, roundness of form, and inclined to quiet grief.

The stereotyped doctrine taught, that Pulsatilla is not useful in choleric, sanguine, malicious, irritable temperaments, who are energetic in their movements, is a great error, and led me astray for years. I believe Pulsatilla acts as well in one as it does in the other. When the symptoms call for this drug, the temperament must not mislead the prescriber.

Mind.—"She is timid and fearful, and yet extremely mild, gentle, and yielding; sometimes silent and melancholy, with bad taste in the mouth in the morning; nothing tastes good."—*G.*

"She weeps very easily, can hardly give her symptoms without weeping."—*G.*

"Very tearful; she weeps at everything, whether joyful or sorrowful."—*G.*

"The forms of her symptoms are very changeable; she is very well one hour, and very miserable the next."—*G.* [Hysterical.]

"Hypochondriac; is out of sorts with everything."—*Hah.*

"Ill-humored and discontented all day; fretful and without appetite."—*Hah.*

"Shuns business, is irresolute, with sighing respiration, and a feeling as if beside himself; can not think of business."—*Hah.*

"The disposition to weep is certainly a strong indication for Pulsatilla; but two errors must be guarded against, in accepting and applying it. In the first place, it must not be considered that a lively disposition, and even a considerable amount of spirits and will, contra-indicate Pulsatilla. Laughter and tears come often with equal readiness."—*D.*

"As the pains increase, the peculiar mental and moral Pulsatilla state is more pronounced; the patient loses courage and gets despondent, and inclines to tears, and, as the pains diminish, the spirits rise."—*D.*

"Wide awake in the evening, does not want to go to bed; first sleep restless; sound sleep when it is time to get up; wakes languid and not refreshed."—*D.* [Indigestion.]

"She can not sleep in the early part of the evening, but sleeps late in the morning."—*G.* [Very characteristic.]

Head.—Sick-headache from suppression of the menses, or from some menstrual or gastric disorder.

"Semilateral headache, with bad taste in the mouth in the morning, without thirst, with nightly diarrhœa and scanty menstruation."—*G.* [Chronic dyspepsia.]

"The headache is chiefly in the forehead and supra-orbital region, and in the temples; pains heavy, bursting, and throbbing; aggravated by mental exertion, stooping, and evening."—*D.*

"Headache as if one had eaten too much, or as if the stomach had been disordered by being overloaded with fat meat."—*Hah.*

"Throbbing headache, relieved by external pressure."—*Hah.*

"Dull headache, like a bruised sensation in forehead."—*Hah.*

"Headache in the evening, as in stopped catarrh, with slight fever."—*Hah.*

"Vertigo, especially while sitting, as if caused by intoxication."—*Hah.*

"Vertigo in the morning, on rising from bed, compelled to lie down again."—*Hah.*

"Vertigo on stooping, as if he would fall down, inclination to vomit."—*Hah.*

The vertigo of Pulsatilla comes on mostly while sitting, is relieved by walking, and in the open air; caused by indigestion.

"The headache in which I have found Pulsatilla of great use (6th or 12th), is characterized by violent pain behind, on one side, as if a nail were driven in."—*Dr. Bayes.* [Marked characteristic.]

"Headache arising from the nape of the neck upward."—*Hah.*

Eyes.—This is one of the most useful eye remedies in the *Materia Medica*, where the conjunctiva and lids are involved.

"As a remedy for styes (hordeola), it has no equal, as in a majority of cases it will cause them to abort before pus forms."—*A. and N.*

"Its action upon the lachrymal sac is very decided; and it has proved a valuable remedy in blennorrhœa, in which the discharge was very profuse and bland."—*A. and N.*

Catarrhal ophthalmia, especially of the lids, with profuse lachrymation and secretion of mucus; worse evenings.

"It is very useful in sty, also in inflammation of the conjunctival membrane of a sub-acute character (12th or 30th)."—*Bayes.*

"The margin of the lower lid is inflamed and swollen, with lachrymation in the morning; the inner canthus seems agglutinated with matter, in the morning; burning and itching in the eyes that provoke rubbing and scratching."—*Hah.*

"The eyes are full of water, especially in the wind and cold air."—*Hah.*

"Cloudiness of vision, with a kind of flashing of fire, as though she had received a slap in the face."—*Dr. Robinson.*

"Dimness before the eyes, and lachrymation in the open air; obstruction of vision, like a fog before the eyes on rising."—*Hah.*

"During the menses, it became black before the eyes, and she felt worse on going into a warm room."—*Hah.*

The obscuration of sight, fiery circles, and flashes of light are accompanied with vertigo and nausea, showing that they are functional and not from organic lesions of the eye.

Pulsatilla is particularly useful in serofulous ophthalmia, or phlyctenular keratitis and conjunctivitis, especially if the pustules are on the conjunctiva; the discharge of mucus is thick, bland, and profuse, more abundant in the open air; the dread of light is but slight.

In purulent ophthalmia of new-born children, it has proved of great value, especially in conjunction with *Argentum nitricum*.

"In eye troubles, especially the superficial found in the negro race, it is particularly beneficial."—*A. and N.*

Ears.—For catarrhal otitis, with much pain, it is the best remedy we have, aggravated at night.

"Much pain in the ears, with deafness; the meatus is red and swollen."—*G.* [Intense neuralgia.]

Chronic otorrhœa, with discharge of pus.

"Violent pain in ear as of something forcing outward."—*Hah.*

"Heat, redness, swelling, in outer ear; jerking pains."—*Hah.*

"Difficulty of hearing, as if the ears were stopped, with a roaring like a loud, distant noise."—*Hah.*

"Much tearing, itching, jerking pains in the inner ear."—*Hah.*

Roaring in the ears as if from rushing water; from thick mucus; ringing, humming, cracking in the ears. (*Tinnitus aurium*.)

Nose.—"Stoppage of the nose, as from catarrh, in the evening, on going to bed; and in the morning a thick, yellow, opaque mucus, as in old catarrh, is blown from the nose."—*Hah.*

"Purulent discharge from the nose, very offensive."—*Hah.*

"Sneezing from catarrh, many times, especially in the evening."—*Hah.*

Acute and sub-acute catarrh, second stage, with copious mucous discharges.

"Nosebleed, suppressed menses; anæmia, dry coryza."—*Hg.*

"Stoppage of nose in the evening, and in warm room; in the morning, yellow, opaque, offensive mucous discharge."—*Hah.*

Face.—"Flushes in the face every evening;—alternately red and pale, or yellowish, with sunken eyes;—puffed, blue, red, cheeks, and nose puffed."—*Hg.* [Bronchi loaded with mucus.]

"Facial neuralgia, nervous excitation at irregular intervals; worse when chewing, talking, or from hot or cold food."—*Hg.*

"Skin of face painfully sensitive."—*Hg.* [Erysipelas.]

"Lower lip swollen and cracked in the middle."—*Hah.*

Mouth.—"The tongue is covered with a tenacious mucus, as with a membrane."—*Hah.* [Chronic indigestion.]

A tongue coated whitish yellow, with tenacious mucus, is characteristic.

"The mouth is covered with offensive, tenacious mucus, in the morning on waking from sleep."—*Hah.* [Indigestion.]

"Loss of taste, nothing tastes good; foul taste in the morning;—clammy, wants to rinse the mouth often;—of putrid meat, with inclination to vomit, in morning; bitter in the morning."—*Hg.*

"Tongue parched, dry, no thirst, feels in the middle as if burned."—*Hg.*

"Toothache immediately on taking anything very warm in the mouth."—*Hah.*

"Toothache on one side of the face; always ceasing on going into the open air; but returns in a warm room, and gets worse; the pains are throbbing or shooting, accompanied with much swelling; worse evenings, in mild, tearful females."—*G.*

"Toothache relieved by cold water in the mouth."—*Hg.*

"She always has a very bad taste in the mouth early in the morning."—*G.*

"Two varieties of pain;—a stitching or digging, worse in the evening, and a drawing, tearing sensation, as if the nerve were drawn tense and then suddenly let go; renewed after eating, and by warmth."—*D.*

"All food has a bitter taste; constant bitter, bilious taste, especially after eating; followed by chilliness and cold sweat."—*Hah.*

Raw, sore feeling in the throat; it seems dry, but is covered with tenacious mucus; from indigestion.

"A sensation as of a worm creeping up, rises into the throat."—*Hah.*

"Intolerable sensation of dryness in the throat, extending as far as the tip of the tongue (without visible dryness), with thirst; but drinking makes him qualmish."—*Hah.*

Stomach.—This is one of the great centers for the therapeutic action of Pulsatilla. Slow, imperfect digestion; the taste of the food, which is mostly sour, returns to and remains in the mouth a long time, with a great feeling of tightness of the stomach, especially if from fat food.

"Loathing, nausea, and retching after greasy food, with sour eructations."—*G.* [Acute and chronic dyspepsia.]

"Sensation as if the food were lodged undigested above the stomach."—*Baehr.* [Globus in hysterical women.]

"Morning sickness, vomiting of mucus; pulsations in the pit of the stomach; bad taste in the mouth every morning on awaking; she has to wash it out soon, it is so bad she can not bear it; nothing tastes good to her; absence of thirst, and nightly diarrhoea."—*G.*

"Disordered stomach; nausea; vomiting; repugnance to food; colicky pains in the abdomen, and dizziness from looking up."—*G.* [Acute indigestion.]

"Gastric disturbance from rich, fat food; sour, bitter vomiting; can not sit long, must walk about to relieve her pains."—*G.*

"Feeling as if a stone lay in the epigastrium (*Bryonia* has the same); throbbing in the epigastrium; a contracting sensation in the œsophagus, as if one had swallowed too large a morsel of food; the same sensation extends over the hypochondria, then up over the chest, and impedes respiration."—*D.*

"Sensation in the stomach, as if one had eaten too much; food rises up into the mouth, as if one would vomit."—*Hah.*

"After eating, constant eructation tasting of food; eructations of bitter fluid in the mouth; uprising of sour liquid after drinking coffee."—*Hah.* [Acute dyspepsia.]

Acrid, green, bilious vomiting caused by fats, pastry, ices, or fruit.

"Aversion to fat food, pork, meat, bread and *milk*."—*Hg.*

"Nausea; water-brash; disagreeable risings, especially after eating and drinking."—*Hah.* [In morning sickness.]

"Gnawing sensation in stomach, like ravenous hunger."—*Hah.*

Gastrodynia, of the most violent kind, in mild, tearful women (or the opposite), inclined to be fleshy, with scanty menstruation; brought on by fat, greasy, rich food.

"Dyspepsia. I attach more importance to a frequent chilliness; absence of thirst; constant nausea, with slight vomiting and little pain; feeling of distention after meals, forcing the patient to loosen his clothes; rising of water into the mouth in large quantities; tongue coated white, and bitter, putrid taste."—*Jousset.* [Very characteristic.]

Neuralgia of the stomach. We have no better medicine if it is caused from indigestion; much flatulency; excessive contracting, crampy pains in the stomach; efforts to vomit, and great restlessness.

"Gastric catarrh, from ice-cream, fruit, fat food; pain as from subcutaneous ulceration."—*Hg.* [With much flatulence.]

Abdomen.—"Much flatulence, as might be expected where digestion is so slow; flatus moves about in the intestines, causing pinching pains, with rumbling noise; worse on waking or just after supper."—*D.*

"Externally the abdominal walls are tender to the touch, when coughing or sitting, especially at stool."—*D.*

"Pressure in the abdomen and small of the back, as from a stone, with disposition of the lower limbs to go to sleep when sitting, attended with ineffectual desire for stool."—*Raue.* [Excessive flatulence.]

Cholera morbus, caused by fat, rich food, with violent pains in the bowels; cutting pains around the navel; worse in the evening and night; lymphatic people.

"Flatus moves from one part of the intestines to the other, with loud rumbling and gurgling, with griping pains, especially in the evening."—*Hah.* [Menstrual irregularities.]

"Sensation of heaviness like a stone in the abdomen, just before the menses."—*Hah.* [Much chilliness.]

"Violent cutting pain low down in the abdomen; a forcing-down into the pelvis, with desire for stool."—*Hah.*

"Pain in lower chest and abdomen, obliging her to bend forward; abdomen and stomach distended, she must unlace."—*Hg.*

Stool.—"A twofold action; difficult stool, with much backache and urging, or frequent desire for stool, with insufficient evacuation or no feces, but instead thereof, yellowish mucus, sometimes mixed with blood. (*Nux vomica.*) On the other hand, *Pulsatilla* produces diarrhœa at night; stool consisting of green and acrid mucus, preceded by commotion in the bowels."—*D.*

"Discharge of blood and mucus during stool; pallid countenance; and disposition to faint, with bad taste in the mouth."—*G.*

"Dysentery; stools of mucus and blood; chilliness toward evening; bad taste in the mouth in the morning, and bruised feeling in the abdomen."—*G.*

"Stools of mucus streaked with blood; worse in the evening and through the night, without thirst."—*G.*

"Diarrhœa always worse at night; no two stools alike, they are so changeable; for a time the child seems much better, then it gets worse again without any appreciable cause; always seems better in the open air; stools are watery, or green mucus."—*G.* [Sub-acute form.]

"Diarrhœa as green as bile, at night, with colic. —*Hah.*

"Greenish, bilious, watery; yellow mucous, mixed with blood; after cold drinks, fruit, ice-cream, fat food; worse at night, relieved in the open air or cool place."—*J. B. Bell.*

"Nightly diarrhœa is characteristic of Pulsatilla; and there is scarcely a drug which occasions it as often."—*Hah.*

"Obstinate constipation, in mild, gentle, tearful females, with very nauseous, bad taste in the mouth in the morning, so very bad she has to wash her mouth out immediately on awakening."—*G.* [Diarrhœa most characteristic.]

"Painful blind hæmorrhoids, with itching, sore pains."—*D.*

Urinary Organs.—Scanty urine and no thirst; profuse watery urine in hysterical complaints.

"Constant pressure in the bladder, without desire to urinate; desire to urinate, with drawing in the abdomen."—*G.*

"Frequent pressure to urinate, and cutting pain during the act. (Cantharis has pain after the act.)"—*D.*

"Involuntary emissions of urine, when sitting, *coughing*, or walking."—*Jahr.* [Very characteristic.]

"After urinating, spasmodic pain in the neck of the bladder, extending to the pelvis and thighs."—*G.*

"Frequent and almost ineffectual urging to urinate, with cutting pain."—*G.* [Sub-acute catarrh of the bladder.]

"Retention of urine, with redness, heat, and soreness of the vesical region externally."—*Raue.*

"Involuntary discharge of urine, drop by drop, at night, or on making exertion, as walking or *coughing*."—*D.*

"Involuntary micturition at night in bed."—*Hah.*

"Sediment reddish, bloody or mucous, jelly-like, sticking to vessel."—*Hg.* [In sub-acute cystitis.]

Sexual Organs, Male.—Orchitis; the testicles and spermatic cord swollen and painful; caused from suppressed gonorrhœa or cold. For acute inflammation of the testes, we have no better remedy, especially if from gonorrhœa.

Second stage of gonorrhœa with yellow or green discharge from the urethra, especially if complicated with rheumatism.

"Painful drawing pains in the spermatic cord, lasting a long time, with tearing pains in the testicles."—*Hah.* [Rheumatic gonorrhœa.]

Seminal emissions at night, with amorous dreams.

Sexual Organs, Female.—Women that are inclined to be fleshy, with scanty menstruation; constantly complaining of chilliness.

"Catamenia too late and scanty, or suppressed, particularly by getting the feet wet."—*G.* [In fleshy females.]

"Menses suppressed or flow intermittently, with evening chilliness; scanty, slimy menses, appear too late."—*G.*

Delayed menstruation, with much chilliness, and bad taste in the mouth in the morning. Nightly diarrhœa.

"Delayed menses, with coldness of the body; chilliness and trembling of the feet; in hysterical females."—*G.*

"During the menses, many symptoms, such as weight and downward pressure in the abdomen and sacral region; nausea; getting black before the eyes; stomach-ache and faintings; all worse in a warm room and from exertion; better in the open air."—*D.* [Great chilliness.]

"The blood is very changeable in its appearance; more apt to flow during walking in the day-time, and intermitting."—*G.*

"Dysmenorrhœa; with pains so violent that she tosses in every direction, with cries and tears; the blood is thick and dark, or pale and watery, flows by fits and starts, much worse in a close, warm room."—*G.*

"Menstrual colic, with great restlessness; tossing in every direction."—*Hg.* [In rheumatic, hysterical females.]

"Tension and contraction in the abdomen, as if the menses would come on, with nausea and mucous vomiting."—*Raue.*

Amenorrhœa, in tearful, yielding dispositions; pale face; difficulty in breathing; much pain in the small of the back; very chilly in the afternoon, and very bad taste in the mouth in the morning; chronic indigestion.

"Metrorrhagia, profuse at times, at other times intermittent, and mixed with clots; most profuse in persons given to reveries, in mild, tearful females."—*G.*

"Labor; the pains excite palpitation; suffocating and fainting spells, unless the doors and windows are open; she must have them open."—*G.*

"Labor-pains alternating with hemorrhage and restlessness; they grow worse toward evening; no thirst."—*G.*

"Milky leucorrhœa, with swelling of the vulva, particularly after the menses; thick and acrid."—*G.*

Thick, white, albuminous leucorrhœa; in tearful females.

"She can hardly find an easy position through the night, owing to the pain in the pelvic articulations."—*G.*

"Leucorrhœa of thick white mucus, especially when lying, or before and during the menses, with cutting pains in the abdomen."—*G.* [Especially young females.]

"Mild, tearful women who have but little milk; the breasts are much swollen; rheumatic pains extend to the muscles of the chest, shoulders, neck, axilla, and down the arms; she is fearful, tearful, and not thirsty."—*G.* [Constantly chilly.]

"She weeps at every nursing; the pains from nursing often extend into the chest, up into the neck, down the back, or change from place to place."—*G.*

"Milk suddenly suppressed; lochia milky white."—*Hg.*

Milk leg; after the acute symptoms have been subdued by Aconite, we have no better remedy than Pulsatilla.

"In pregnancy, she says the child turns over and does not lie right, so that it pains her."—*Dr. Conant.*

"Uterine irregularities occurring in the anæmic, or in those of venous constitution, yield very promptly to Pulsatilla."—*Bayes.*

Chlorosis; much chilliness, and fainting with diarrhœa. The action of Pulsatilla upon the vascular system and sexual organs is to produce a *complete chlorotic blood crisis.*

Phlegmasia dolens; limb pale white color, swollen, veins hard, knotty, intensely painful to touch, and motion impossible.

Respiratory Organs.—This is a grand remedy for the second stage of catarrhal coughs, not depending upon an organic base. The cough is loose, with copious mucous expectoration, accompanied with great soreness of the epigastrium; and, if in a female, urine is emitted at each cough. It is generally very loose through the day and tight at night.

"Pulsatilla is similar to Hepar; when given too early, even in the third dilution, it will produce aggravation and render the cough dry after resolution sets in. Pulsatilla, like Hepar, suits only moist cough, with copious mucous expectoration, especially when yellow, whitish, salty, toward the end of catarrhs, or in chronic catarrhs. Pulsatilla encroaches not so deeply upon the metamorphosis as Hepar, and is, therefore, only a palliative in chronic organic cases. It is especially indicated for mucous rales, where asthmatic disturbances arise from the accumulation of phlegm (emphysema), with catarrhal irritation in the throat; amelioration in the fresh air, aggravation in the evening and at night. It is a specific in those cases where the cough is moist through the day, with dry, titillating cough at night in a recumbent position."—*Dr. Hirschel.*

"What could we do without Pulsatilla in presence of copious muco-purulent expectoration in lymphatic, anæmic females? Nocturnal paroxysms of dyspnœa, gouty or rheumatic pains, flying about from one part of the body to another."—*Meyhoffer*.

"Coryza much worse every evening; the cough is very loose, and, with all the fever, there is little or no thirst."—*Hg*.

"Child has difficulty of breathing when it lies on its side; worse evenings."—*Hg*. [Sub-acute bronchial catarrh.]

"Cough very loose with vomiting of mucus, and nightly diarrhœa."—*G*.

"Morning loose cough."—*F*. [From gastric irritation.]

Loose catarrhal symptoms, with tardy menstruation.

Asthma from deranged menstruation or suppressed urticaria.

"The sensations in the chest are chiefly tension and constriction in conjunction with dyspnœa and asthmatic symptoms."—*D*.

"The nasal membrane, after a brief period of unnatural dryness, secretes abundant mucus, which becomes thick, yellow, or green, and offensive."—*D*. [Sub-acute catarrh.]

"If she lies upon the left side, complains of anxiety, rapid palpitation and want of breath."—*Hah*. [From indigestion.]

"Pain as from an internal ulcer in middle of chest."—*Hah*.

"Aphonia nervosa returns at every emotion; constriction in throat preventing speech; can not eat; weeps much."—*Hg*.

Heart.—"Palpitation in violent paroxysms; anguish; obscuration of sight; trembling of limbs; from chagrin, fright, or joy, with anæmia, chlorosis; feeble pulse after dinner."—*Hg*.

"Palpitation, great anxiety, so that he was obliged to throw off his clothes."—*Hah*.

"Catching pain in cardiac region; pressure relieves."—*Hah*.

All the heart symptoms are reflex from indigestion.

Neck and Back.—"Sticking pains in the nape of the neck; drawing like rheumatism in the nape of the neck, in the afternoon; moved with great difficulty."—*Hah*.

"Interscapular pain, worse by inspiration."—*Hg*.

"Pain in small of back, as if sprained, on motion."—*Hah*.

"Pain in small of back like labor-pain, as if tied."—*Hah*.

"Pain in small of back, after sitting, can scarcely rise."—*Hah*.

Much chilliness and pain in the sacral region during menstruation.

Back is so chilly, feels as if cold water were being poured on it.

Extremities.—Rheumatism; pains shift rapidly from one part to another, unattended with any great swelling or redness;

chronic cases with weakness, rigidity, coldness, and weight in the diseased tissues; complicated with indigestion.

"Drawing rheumatic pains frequently shifting from one part of the body to another; constant chilliness, worse nights."—*G.*

"Simple pain in the limbs, especially in the joints; obliging him to stretch the body, with heat of the whole body, without thirst in the morning in bed."—*Hah.*

"Drawing, tearing in the limbs, with chilliness."—*Hah.*

"The swelling and heat of the knee and ankle joints, as well as the small joints of the fingers and toes, together with the drawing, tensive pain in them, suggest that Pulsatilla acts upon the synovial membranes and upon the nutrition similarly to rheumatism, and have led to its successful use in rheumatic gout."—*D.*

"The limbs upon which he lies while asleep, seem asleep with tingling on waking."—*Hah.* [Rheumatism.]

"Sensation of numbness or heaviness in the arm, on raising or using it."—*Hah.* [Rheumatism.]

"The arm is painful, even while at rest, as if humerus were beaten in the middle; the pain goes to the thumb so she can not use it."—*Hah.*

"Hip-joint painful, as if dislocated."—*Hah.* [Arthritic gout.]

"A jerking, sore pain, extending from the hip-joint to the knee, while in the bed mornings, disappearing on walking."—*Hah.*

"Excessive weariness of the thighs, with trembling of the knees."—*Hah.*

Drawing pain in the muscles of the thigh, at night, that obliges him to move; he does not know what to do, with sleeplessness and great feeling of chilliness."—*Hah.*

"Swelling of the knee, with tearing, drawing pains."—*Hah.*

"The varicose veins swell up and bleed much."—*Hg.*

"Swelling of the feet, with great weakness of the feet."—*Hah.*

"Swelling of the back of the foot, sometimes extending along the thighs; great inclination to stretch out the feet."—*Hah.*

"Chilblains inflamed, bluish, itching."—*Hg.* [In female diseases.]

"Soft, white, shining swelling of the knee."—*Hg.* [Synovitis.]

"The pains are drawing, tearing, as of an internal ulcer; aggravated by touch; but the most peculiar pain is a tension, which increases until very acute, and then lets up with a snap; much worse evenings before midnight."—*D.*

"Specific for that variety of rheumatism which is relieved by a catarrhal discharge, or follows the suppression of a catarrh;

pains flying, wandering, rarely fixed, except on the dorsum of the feet."—*Dr. Hale*. [Especially in females.]

Skin.—"A burning itching over the whole body, on becoming warm in bed, before midnight, aggravated by scratching; unable to sleep on account of it; less during the day, and only after becoming heated from walking or after rubbing; there is no appearance of an eruption."—*Hah.*

"The skin is hyperæmic and swollen; eruption especially of the vesicular form; erysipelas; urticaria; blisters; pustules."—*Dr. H. C. Jessen*.

Urticaria from rich food, with diarrhœa; worse nights.

Second stage of rubeola, with *otalgia*, and loose cough.

Ulcers that bleed easily and burn much; relieved by cold.

Fever.—Very useful in intermittents where chilliness predominates, little heat, and no thirst. The great amount of chilliness shows how prominently it affects the posterior portion of the spinal cord.

"Chilliness even in summer, when warmly clad, with vertigo; throbbing headache; pressure in the stomach, pain in the uterus, and dysuria; caused by nervous debility or wet feet."—*G.* [Associated with indigestion.]

"Flying rheumatic pains, with much chilliness, especially after getting the feet wet."—*Hg.* [Or from gonorrhœa.]

"Chilliness all over, without shivering; he feels cold in the evening; chilliness the whole evening."—*Hah.*

"Intolerable burning heat at night; he is hot, during which he wishes to be covered; he licks the lips and does not drink, but moans and groans."—*Hah.*

"Dry heat of the body in the evening, with distended veins and burning hands, that seek out cool places."—*Hah.*

"Fever; thirst about 2 p. m., followed about 4 p. m. by chill without thirst, with coldness of the feet and hands, with anxiety and oppression of the chest; afterward, when lying down, drawing pains in the back extending to the occiput, and thence into the temples and crown of the head; three hours after, heat of the body without thirst; sweat only in the face, trickling down in large drops; sleepiness without sleep; very restless; followed in the morning by sweat over the whole body."—*Hah.*

Easy and profuse morning sweats; sometimes one-sided.

Bad effects of Quinine; chlorosis from abuse of Iron; bad effects from suppressed menstruation; from Mercury, Sulphur, Chamomile tea, watering-places, and rich, fat food. This is the

best female remedy known; especially if in rheumatic hysterical females.

Aggravation.—In a close, warm room; craves fresh, cool air; worse always in the evening and forepart of the night, especially aggravated by returning to a warm, close room; from warmth of bed; while lying down, especially on left side; in wet weather; before menstruation, and especially after rich, fat, greasy food, pastry, fruit, nuts, and ice-cream.

Amelioration.—In the open air; in a cold place; from cold air, and cold things; strong desire for open air, making the patient feel better in every way; from midnight to noon; in dry weather; from exercise; when lying on the back, and from external pressure.

RHEUM.

Rhubarb.

Habitat: China, etc. Tincture of ground root, Class IV, and Triturations.

Antidotes.—Cham., Camph., Coloc., Merc., Nux vom., Puls.

Through the solar plexus, Rheum has two special centers of action:

- I. **INTEST. C. (MUSCULAR P.)** *Increased Peristalsis; Diarrhœa.*
- II. **LIVER.** *Hepatic Stimulant; Secretion of Bile Increased.*

Intestinal Canal.—This is a moderate purgative, producing fecal rather than watery stools, and affects the muscular fiber of the bowels more than the secretory. "To the same effect is the testimony of all therapeutists. Rhubarb is considered to stimulate the muscular fiber of the whole length of the intestine, purging without causing serous effusion, and never, however far its action may go, inflaming the mucous membrane."—*Dr. Hughes.*

"It is not an easy, liquid, and copious stool, nor a painless diarrhœa, which is the primary action of Rheum on the bowels, but rather a colicky and sometimes ineffectual urging to altered stools, which are nevertheless always fecal."—*Hahnemann.*

Liver.—"As the stools present an appearance to which the term 'bilious' was applied, it was formerly supposed that Rhu-

barb had the power to increase the flow of bile. More recently it has been universally conceded that the coloring-matter of Rhubarb produces the peculiar tint referred to. The latest investigations of Rutherford and Vignal have, apparently, very conclusively shown that Rhubarb really possesses the property anciently ascribed to it, and that it must be placed among the cholagogue medicines. As it is now known to increase the flow of bile, it may be assumed that the intestinal secretions in general are promoted by it.

"The coloring-matters of Rhubarb stain the perspiration, milk, and urine; and the milk acquires a bitter taste and purgative properties."—*Bartholow*.

Therapeutic Individuality.

Digestive Organs.—Sour-smelling, papescent diarrhœa; the urine high colored; abdomen distended, and cutting pains about the navel.

"Very sour smell of the child, which can not be removed by any amount of washing and care in keeping it clean."—*G*.

"Much colic, with very sour stools."—*G*. [Acid children.]

"Cholera infantum; stools frequent, uniformly frothy, watery, and of a pea-green color."—*Dr. A. E. Small*.

"Colic in children made worse at once by uncovering an arm or a leg."—*Raue*. [The whole child smells sour.]

"Of great utility in the duodenal catarrh, and in the catarrh of the biliary ducts with jaundice; stools whitish, pasty, or clay colored; skin presents an earthy or jaundiced hue."—*Bartholow*.

"Desire for various things, but can not eat them, they become repulsive."—*Hah*. [In summer diarrhœa.]

"The desire for stool is aggravated by walking."—*Hornburg*.

Sleep.—Sleep restless, with much tossing about in children.

In General.—Sour children that cry a great deal.

Aggravation.—From uncovering; from cold; morning, and before stool.

Amelioration.—From warmth, and wrapping up.

RHUS TOXICODENDRON.

Poison Oak.

Habitat: North America, etc. Tincture of fresh leaves, Class III.

Antidotes.—Strong Tansy Tea, Merc., Camph., Bry., Coff., Sulph., Croton.

Through the cerebro-spinal system, *Rhus toxicodendron* has eleven special centers of action:

- I. SKIN. *Vesicular Erysip.*; *Eczema*; *Pemphigus*; *Sour Sweat*.
- II. MUCCOUS MEM. (FAUCES, GAST.-INTESTINAL CANAL.) *Inflam.*
- III. EYES. *Acute Rheum. Conjunctivitis*; *Strumous Ophthalmia*.
- IV. LUNGS. *Congestion*; *Infiltration*; *Typhoid Pneumonia*.
- V. MOUTH. *Acute Inflammation*, Especially *Fauces*; *Sordes*.
- VI. STOMACH. *Loss of Appetite*; *Nausea*; *Vomiting*; *Gastritis*.
- VII. ABDOMEN. *Typhoid Enteritis*; *Tympanitis*; *Involunt. Stools*.
- VIII. SERO-FIB. TISSUE. (TENDONS, FASCLE.) *Rheumatoid Inflam.*
- IX. LYMPHATICS. *Secretions Acrid*; *Congestion*; *Inflammation*.
- X. BLOOD. *Septic Fever*; *Fibrine Increased*.
- XI. CEREBRO-SP. SYSTEM. *Profound Depress.*; *Rheumatic Paral.*

Skin.—This is the most prominent center for the action of *Rhus*. Whether the poison is taken internally, inhaled, or by contact, it soon produces an irritation of the skin, varying in intensity from the slightest erythema to the gravest form of erysipelas. "The effects produced by *Rhus* are redness and swelling of the affected parts, which, if the exhalation be the exciting cause, are more particularly the face and eyes. Subsequently, there is pain, and often a considerable increase of temperature, and the inflamed surface is generally studded with vesicles. Combined with these symptoms, there is an almost unbearable amount of itching, which is not confined to the patches of inflammation, but diffuses itself more or less over the entire surface of the body, the hairy portions appearing to be very especially affected. The condition induced thus appears to be of an erythematous or erysipelalous type. It is superficial, but spreads rapidly over the surface, and speedily involves large areas of the body."—*Phillips*.

"The action of Rhus on the skin is obviously of a very acute and specific kind. Teste well describes it as that of 'a corrosive caustic, which, from its extreme subtilty, has a tendency to invade large surfaces, rather than to penetrate deeply into tissues.' He compares it with Arnica, which dips deeper down, and with Ledum, whose influence is more localized. Severe boils followed the primary symptoms in two of the provers of Rhus venenata. An additional value for Homœopathic purposes is given to these effects by the fact mentioned by Dr. Phillips, that they only occur in a certain number of those who are exposed to the influence of the plant; i. e., they are contingent upon special susceptibility. Dufresnoy, moreover, states that persons not constitutionally susceptible to the disorders induced by Rhus as a poisonous agent, are not so likely to receive benefit from it if used as a medicine. It points in the same direction when we hear from Trousseau and Pidoux of the symptoms first appearing twenty-five days after inoculation with the juice, and from Fontana, of their recurrence at intervals subsequently.

"Correspondingly in cutaneous affections, especially when acute, Rhus naturally takes high rank as a remedy. The members of the order vesiculæ—herpes (especially h. zoster), eczema, and pemphigus—are the forms of eruption to which it is most suitable. I have frequently cured these affections with Rhus, and, indeed, rarely require any other remedy for them. Itching, with burning, is a characteristic indication for it here. Dr. Dunham recommends it in eczema impetiginoides; and Dr. Wesselhoeft has communicated cases of prurigo senilis and vulvæ cured by it. Still more closely do the effects of Rhus correspond with erythema and erysipelas. When this latter malady goes on to the formation of vesicles and bullæ, Rhus is the standard remedy among Homœopaths; and I have often seen it act here in the most beautiful manner. Teste seems justified in recommending it as the best remedy to be given in extensive but superficial burns."—*Hughes*.

Mucous Membranes.—Rhus has a specific action upon the mucous membranes, especially that of the fauces and gastrointestinal canal, as shown "by the redness and swelling of the mouth and throat, with, ordinarily, great thirst, irritable cough, nausea, vomiting, vertigo, dullness and stupefaction of the head, and colicky pains throughout the abdomen. These last are chiefly experienced during the night, and are aggravated by eating and drinking. Diarrhœa frequently ensues, accompanied by tenesmus; and the stools are often bloody. There is often reten-

tion of urine, or else diuresis; and the water is frequently accompanied by blood. . . .

"Rhus is, moreover, thoroughly homœopathic to affections of the mucous membrane resembling those which it causes on the cutaneous surface. The late Sir J. Y. Simpson has well shown that conditions answering to erythema and eczema of the skin are not uncommon on the lining membrane of the bowels and other parts, especially in women. Rhus is also beneficial in diarrhœa and dysentery associated with low general conditions, as typhus and scorbutus. The mucous membrane it influences most powerfully, is the conjunctiva. In the sixth volume of the *British Journal of Homœopathy*, Dr. Dudgeon has collected numerous testimonies, from all schools, to its value in strumous ophthalmia. Perhaps the phlyctenular character of the affection has something to do with its usefulness here; and it is noteworthy that there is often an association of general eczema of the face. When this occurs, Rhus is doubly indicated."—*Dr. R. Hughes.*

"The mucous membranes are always involved. The tongue is more or less coated, becomes rough, dry, cracked, and woody; bitter, sour, coppery taste, a total loss of appetite; the lips and teeth are sometimes covered with brown sordes; the taste is gone. The condition of the gastric and intestinal mucous membrane is such as to produce want of appetite, or, on the other hand, canine hunger, along with which there is a soapy, slimy condition of the mouth; everything tastes like straw, and there is an immediate feeling of fullness; aversion to food, nausea, retching, vomiting. Gases are developed in the intestinal canal, which distend the abdomen. The abdomen becomes sensitive to external pressure under the margins of the left ribs and in the right iliac region. The stools are at first scanty and infrequent; indeed, there may be none for several days; generally, however, they soon become fluid, and occur three or four times daily, without tenesmus or other discomforts; and at a later period, when they are still more frequent, they pass involuntarily. They consist of serum and of a greenish-brown substance, which, at a later period of the disease, is mixed with white flocculi."—*Dr. Dunham.*

Lungs.—"Resulting from the affection of the mucous membrane of the air-passages, there is a sensation of dryness in the trachea; the somewhat accelerated respiration is, at first, somewhat louder, sharper, the expiration audible; at a later period, mucous rales set in, or large crepitation. The cough, which is at first moderate and dry, becomes gradually more violent, and

looser in sound, but accompanied by only a very little tenacious sputa, now and then streaked with blood. The parenchyma of the lung is congested with blood, especially in the lower lobes; and pneumonic infiltrations often form there, which explain the following symptoms, not infrequent in typhoid; constriction of the chest; short, anxious respiration; sticking pains in the sides, etc."—*Dr. Dunham.*

Sero-Fibrous Tissue.—This is the most useful sphere of Rhus. "The rheumatoid pains described by Dr. Phillips, as occurring in Rhus-poisoning, are seen in an especial degree in the provers of the drug. From Rhus venenata, the joints, as well as the fibrous tissues, were affected,—especially the knees, ankles, feet, and hands; but there was no genuine synovial swelling, as with Bryonia and Pulsatilla. It is chiefly to these rheumatoid pains that Hahnemann's well known observation belongs, that, unlike those of Bryonia, they are most violent when the part affected is in a state of perfect rest. He extends the statement, indeed, to the symptoms produced by the drug generally; and the recent provings of Rhus venenata support this statement.

"Rhus has thus come to occupy a high place in Homœopathic therapeutics among the remedies for rheumatism. It is not often indicated in rheumatic fever. It would be so where, as in a case mentioned by Dr. Bayes, restlessness and constant desire to change the position were present. Dr. Phillips also says, that, 'in the after stage of acute rheumatic fever, when Aconite may have been employed, and when the temperature has fallen to 100° or below it, and where the patient still suffers from wearing stiffness, and aching in the neighborhood of the joints, Rhus is positively invaluable.' But, in various sub-acute and chronic rheumatic affections, it is a most precious remedy. Its action is mainly, if not entirely, upon the fibrous tissues,—tendons, fasciæ, sheaths of nerves, etc., and, perhaps, the muscles. I do not think that it controls the rheumatic affections of the synovial membranes, but only those of the ligaments external to the capsules of the joints. Nor do I think that it acts upon the nerves themselves. Its undoubted value in rheumatic sciatica depends, I take it, upon its influence on the fibrous sheath of the nerve, which is so often the seat of the pain. It is powerless in pure neuralgia, here or elsewhere. It is certainly the best remedy in most cases of lumbago, after Aconite. I suspect that here the lumbar fasciæ are the parts affected rather than the actual muscles. In rheumatic lameness of the lower extremities, depending largely

upon the state of the fascia lata, Rhus has made brilliant cures. In all these maladies, the characteristic features, 'worse at rest, relieved by motion,' are of immense weight in determining our choice of Rhus. Dr. Neidhard has added the important observation, that, on first moving after rest, the pains are increased. It is not until the parts have been removed for some little time that relief ensues. With Bryonia, on the other hand, the longer the movement continues, the worse the pains become; and with Rhododendron, movement relieves from the first. Dr. Carroll Dunham has drawn out these characteristics of the pains of Rhus in a very interesting manner. He says: 'The rheumatic symptoms of the drug come on with severity during repose, and they increase as long as the patient remains quiet, until, at length, their severity compels him to move. Now, on first attempting to move, he finds himself very stiff, and the very first movement is exceedingly painful. But, as he continues to move, however, the stiffness is relieved and the pains decidedly decreased, the patient feeling much better.' He goes on to point out that this improvement does not continue indefinitely; for weariness readily comes on in such patients; and then rest is at first grateful, only after a while to be disturbed by a recurrence of the aching pain.

"The action of Rhus on the white fibrous tissues, has led to its being used in the treatment of sprains. Hahnemann says: 'I have recognized in these latter years that Rhus is the best specific against the consequences of muscular strains and contusions.' He does not say what relation it bears to Arnica here; nor do I know that general experience has found it superior or even equal to that medicine."—*Dr. R. Hughes.*

"Soreness as if beaten; this is felt in the muscles and in the neighborhood of the joints. Heaviness and pressure; this is felt in the head, eyes, eyelids, and in the limbs; lassitude, languor, and weight, felt in the extremities, especially lower limbs."—*Hah.*

"The action of Rhus may be summed up as follows: It produces a kind of a rheumatic affection of the muscles and ligaments, alleviated by motion; a paralysis aggravated by motion; an apparent passive congestion of the head, relieved by repose, and general depression of the sensorium."—*Dunham.*

Lymphatic Glandular System.—The lymphatic glandular system throughout the body, is congested and inflamed. This is especially the case in the cervical, inguinal, and mesenteric glands, with emaciation, and great acridity of all the secretions. It also acts upon the sudoriferous glands, producing copious *sour* perspiration.

Blood.—The life of the blood-making organs is so paralyzed that the composition of the blood is very much perverted, as shown from the character of the fever produced by Rhus; and its great therapeutic value in blood diseases, shows that it affects the blood and the blood-making organs similarly to the poison of typhoid, scarlet fever, and erysipelas, producing ecchymoses of the skin, etc.

Cerebro-Spinal System.—"It acts quite decidedly upon the system of animal life; and the nervous functions are always powerfully affected. They are oppressed and restricted. The organs of sense are, in the beginning, in a condition of over-excitability, with great sensibility to light, noise, etc. At a later period, the opposite condition obtains; the patients become insensible to external influences, complain of nothing whatever; lie in a condition of atony, and the capability of the mind for continuous thought is absolutely destroyed. Thus, a patient meaning to write the number 12 will write the figure 1, but can not recollect the figure 2 which should follow it; like the typhus patient, who begins his sentence coherently and intelligibly, but allows it to dwindle away into an inarticulate murmur. Listlessness and horrible depression possess the mind. This marks a more profound depression than that produced by Bryonia; for the latter results in fretful peevishness and irritability. Rhus has listlessness, a feeling of helplessness and profound despondency. A similar feeling pervades the whole apparatus of voluntary motion, expressing itself in a sense of physical prostration, of inability to move, of powerlessness and approaching paralysis. So great is this, that, on first attempting to move after a repose of some length of time, the limbs tremble, the joints are stiff, and there seems to be actual inability to move. This condition is more profound in the lower extremities than in the upper.

"In paralysis, especially of the lower extremities, Rhus is an important remedy. But the paralysis for which it is appropriate is not that form which results from a lesion of the spinal cord. It is rather of the motor than of the sentient nerves; for I believe sensation is not much impaired. In the form known as rheumatic paralysis, where the paralysis supervenes upon rheumatism, Rhus is especially called for. So, likewise, as would be expected, in cases resulting from undue exposure to cold and dampness, especially exposure of the back or limbs."—*Dr. Dunham.*

"The fever of Rhus-poisoning is at first sympathetic with the dermatitis that is set up; but later here, as pointed out by Dr. Phillips, and, perhaps, primarily (as suggested by the provings),

from the internal use of the drug, a febrile condition of low nervous type is set up, with diarrhoea and prostration. Hahnemann was led thereby to use Rhus as a principal remedy for the epidemic fever which ravaged Germany in 1813. Whether it was true typhus, or (as Dr. Russell thinks) relapsing fever, is doubtful; but this, at least, is certain, that, while the mortality under the ordinary treatment was considerable, Hahnemann treated 183 patients without a single death. He also recommended it, in alternation with Bryonia, in the consecutive fever of cholera.

"Rhus has accordingly taken rank as an important anti-typhoid remedy in Homœopathic practice. Drs. Wurm and Caspar, from their experience in the Leopoldstadt Hospital, at Vienna, define its place in typhus and enteric fever. It corresponds to an erethistic type of the malady, such as, when more severe, requires Arsenic. Dr. Dunham points out that a corresponding condition is apt to supervene in the course of measles and scarlatina; and that here Rhus is no less indicated and beneficial. In the latter disease, he says, it is still more strongly called for, 'if there be an œdematous condition of the fauces, soft palate, and uvula, with vesicles upon these parts, and a singularly annoying itching, smarting, and burning.' Epidemics of influenza sometimes present this condition of the throat, with great debility; and here, also, Rhus is indicated. Another variety of scarlatina, in which I have much confidence in Rhus, is that in which rheumatic symptoms appear. I speak of the 'scarlatina rheumatica.'"—*Dr. R. Hughes.*

Therapeutic Individuality.

Characteristics.—This great polychrest is especially adapted to diseases that partake of a rheumatic nature; the pains are greatly aggravated by rest and damp, rainy weather.

The pains are greatly aggravated by rest; worse after midnight and before storms; relieved by motion; has to toss about constantly to get relief.

"Can not lie long in one position, but must shift about to obtain relief; the relief lasts but a short time, when the patient must move again."—*G.* [Very characteristic.]

"The great and characteristic peculiarity of the symptoms of Rhus, is, that, with few exceptions, *they occur and are aggravated during repose, and are ameliorated by motion.* In addition to the symptoms of Rhus which resemble paralysis, there are also groups of symptoms resembling muscular and articular rheumatism. These rheumatic symptoms come on with severity during repose

and increase as long as the patient keeps quiet, until they compel him to move. Now, on the first attempt to move, he finds himself very stiff, and the first movement is very painful. By continuing to move for a little while, however, the stiffness is relieved, and the pains decidedly decrease, the patient feeling much better. But this improvement does not go on indefinitely. After moving continuously for a longer or shorter period and finding comfort therein, the paralytic symptoms interpose their exhausting protest, and the patient is compelled, from a sensation of lassitude and powerlessness, to suspend his movements and to come to repose. At first, this repose after long continued motion is grateful, since it relieves, not the aching and severe pains, but only the sense of prostration. Before long, the pains come on again during this repose, and the patient is forced to move again as before."—*D.*

The child always gets worse after midnight; has more colic; more diarrhoea, and is more restless, than during the day.

Bad effects from strains, lifting, particularly from stretching arms high up to reach things, and from severe wetting in rain when heated; the limbs become very lame and stiff in damp air before storms; rheumatic fever.

Mind.—"As regards the disposition, it is depressed and despondent; averse to all exertion, full of sad anxiety and care-taking, depressed, lonesome, and prone to weep; anxiety is so great he thinks he shall die or lose his mind; the forces sink; he gets fits of trembling; then comes restlessness; the patient can't sit still, but must always keep moving; becomes fearful, thinks he has been poisoned; the anxiety goes to such an extent that he feels as though he would take his own life; at the same time a sense of dyspnoea, and yet relief from deep inspiration."—*D.* [In low septic fevers.]

"Sad, begins to weep without knowing why, worse in the house, relieved by walking in the open air."—*Hah.*

Very restless mood; great apprehension at night, can not remain in bed; in low nervous fevers.

"Low, mild delirium; stupefaction and insensibility."—*Hah.*

"Satiety of life, with fear of death; wants to go from bed to bed."—*Hg.* [In typhoid and eruptive fevers.]

Head.—"Vertigo occurs when standing or walking, is worse when lying down."—*D.* [Nervous fevers.]

"Dullness of the head as if intoxicated, while sitting; on rising such dizziness that it seemed as if she were going to fall forward and backward."—*Hah.* [Low septic fevers.]

"Head so heavy that she was obliged to hold it upright in order to relieve the weight pressing forward into forehead."—*Hah.*

"A sensation of swashing and jarring in the brain, and each step concusses the brain (China)."—*D.*

"On shaking the head, a sensation as if the brain were loose and hit against the skull."—*Dr. Franz.*

"Headache, pressure, both in the temples, forehead, and behind the orbits, where it feels sometimes like a wearisome pressure downward; sometimes as if the eyes would be pressed outward; sometimes as if the brain were being pressed together from both sides; sometimes burning pressure in the temporal bone."—*D.* [Commencement of typhoid fever.]

"When stooping, it seems as if he could not rise again; sensation as if a quantity of blood shot into the brain, causing the head to fall downward."—*D.*

"Headache in the occiput, that disappears on bending the head backward."—*Dr. Franz.* [Rheumatic myalgia.]

"Head as painful to the touch as a boil."—*Hah.*

Violent drawing and tearing pains in the periosteum of the cranial bones; worse at rest and in damp, stormy cold weather; relieved by wrapping the head up warmly, and by dry heat and exercise.

"Moist, suppurating eruptions on the head, forming thick crusts, eating off the hair; offensive smell; itching; worse at night."—*Dr. Cowperthwaite.*

Eyes.—Eyelids present a bladder-like appearance, and the lids are closed from the great swelling; acute conjunctivitis.

"Its curative power is chiefly exerted upon those symptoms of the lids which are dependent upon inflammation of the deeper structures; although it is often valuable in uncomplicated blepharitis, especially of the acute form, with a tendency to the formation of an abscess; the lids highly œdematous, accompanied by profuse lachrymation and pains; worse at night, relieved by warm applications."—*A. and N.*

In erysipelas of the lids, it is very important, whether of traumatic origin or not. I have cured many cases of this nature, especially if there is profuse lachrymation and spasmodic closure of the lids.

No remedy equals it in orbital cellulitis, with much œdema.

"Ptosis, and paresis or paralysis of any of the muscles of the eyeball, from rheumatism or cold, damp weather."—*A. and N.*

Conjunctivitis (acute) from wet; conjunctiva highly chemosed; photophobia; profuse lachrymation and œdema of the lids.

"In ulcers and pustules of the cornea, the photophobia is very great, so that the patient lies constantly on the face; profuse lachrymation; rheumatic character; worse at night."—*A. and N.*

Many cases of kerato-iritis have been cured with *Rhus*, especially if rheumatic in character; from cold, damp atmosphere.

"Its grandest sphere of action is to be found in suppurative iritis, or in the still more severe cases, in which the inflammatory process has involved the remainder of the uveal tract (ciliary body and choroid), especially if of a traumatic origin, as after extraction of cataract. As a remedy in this dangerous form of inflammation, it stands unrivaled. The lids are red, swollen, and œdematous, especially the upper, and spasmodically closed, with profuse gushes of hot tears upon opening them; sac-like swelling of the conjunctiva, and yellow, purulent, mucous discharge; pain in and around the eye; swelling of the cheek and surrounding parts. In suppurative inflammation of the whole of the uveal tract, of non-traumatic origin, and if the formation of pus has already taken place, *Rhus* will cause its absorption."—*A. and N.*

"Sixteen cases of arthritic ophthalmia, mainly in gouty subjects, but some from working in water, with tearing pain in the eyes, especially at night, were cured by Dr. Ruckert."

"The eyes red, agglutinated with matter, in morning."—*Hah.*

Something like a veil before the eyes, obscuring the vision.

Ears.—"There is a whistling or squeaking noise heard, or a ringing when walking, which changes to a loud resonance when lying down, as if the membrana tympani were burst."—*D.*

Erysipelatous inflammation of the external and internal ear, vesicular in nature, with excessive otalgia.

Discharge of bloody pus from the ear in acute inflammation, excoriating.

"Parotids; suppurating, during scarlatina."—*Hg.*

Nose.—"Nosebleed; blood dark; at night when stooping and when clearing the throat; scabs about the nares."—*D.*

"Large quantities of nasal mucus run involuntarily from the nose, as in the moist, severe coryza, although he has no coryza, in the morning after arising from bed."—*Hah.*

Hot, acrid discharges from the nares in scarlatina.

"Swelling of the nose; the tip is red and painful to the touch, as if it would suppurate."—*Dr. Franz.* [Boils and erysipelas.]

"Frequent, very violent, spasmodic sneezing."—*Hah.*

The breath seems so hot that it burns the nostrils.

Face.—Great swelling of the face; vesicular erysipelas, the eyes are closed from the swelling, with delirium and high fever.

"Sickly expression, sunken face; blue rings around the eyes."—*Hah.*

"Violent burning in the swollen face."—*Hah.* [Acute erysipelas.]

"Cramp-like pain in the articulation of the lower jaw, close to the ear, during rest and motion of the part."—*Dr. Franz.*

"There is a constant desire to yawn, until it seems as though the jaw would break."—*D.*

Mouth.—"The gums burn and are sore; teeth loose; the toothache is a jerking pain extending into the head."—*D.*

"Corners of the mouth sore and ulcerated; fever blisters around the mouth."—*Hg.*

"Putrid taste; after the first mouthful, has no appetite."—*G.*

"Sensation of dryness, which persists notwithstanding all the patient may drink."—*D.* [Typhoid diseases.]

"Tongue; dry, red, cracked; has a triangular red tip—white often on one side; yellowish; covered with brown mucus; takes imprint of teeth."—*Hg.* [Typhoid enteritis.]

"Much tough mucus in the mouth and throat."—*Hg.*

"Saliva bloody, runs out of the mouth during sleep."—*Hg.*

Breath excessively putrid in typhoid and diphtheria.

Throat.—"Sore throat, deglutition difficult; sticking pains; much swollen externally, the maxillary and parotid glands greatly enlarged."—*Caroline Le Beau, M. D.* [Putrid diphtheria.]

Parotid glands highly inflamed and enlarged, in scarlatina; swallowing nearly impossible; diphtheria and variola.

Great thirst and dryness of the throat, in typhoid conditions.

"Unable to drink, as if the pharynx were paralyzed, with dryness of the throat."—*Hah.* [Scarlatina and gastro-enteritis.]

Throat swollen, especially the parotids; erysipelatous inflammation of the fauces and tonsils; cellulitis; swallowing nearly impossible; in tonsillitis and diphtheria.

Appetite.—Complete loss of appetite, in fevers.

"Ravenous hunger and emptiness in the stomach, with complete loss of appetite in the palate and throat."—*Dr. Franz.*

"Complete loss of appetite for all food."—*Hah.*

"Desire for cold milk, water, or beer."—*Stapf.*

"Thirst caused by sensation of dryness in the mouth."—*Hah.*

"Unquenchable thirst, wants cold drinks, worse at night."—*Hg.*

Stomach.—"Nausea, after ice-water, or after eating, with sudden vomiting; with inordinate appetite and inclination to vomit, worse after eating and at night."—*Hg.*

"Fullness or heaviness, as from a stone in the stomach, after eating; or pulsation in the pit of the stomach."—*Hg.*

"Pressure in stomach as if swollen, or drawn together."—*Hg.*

Pressure in stomach as from a stone after eating; dyspepsia.

Abdomen.—Enteritis or peritonitis; great distention of the abdomen, and typhoid symptoms, with involuntary stools.

"Colic, he must walk bent; worse at night, and from wet."—*Hg.*

"Violent colic, relieved only by lying on his back, with legs elevated vertically."—*A. McNeil, M. D.*

"Sensation as if something was torn off in the abdomen, with visible contractions above the navel."—*Hg.*

"Soreness as if beaten in hypochondria, and still more in the abdomen; worse in the side lain on, or motion."—*Hg.*

"Excessive distention of abdomen, after eating."—*Hah.*

Swelling, congestion, and inflammation of the inguinal glands.

Stool.—Great pain before stool, which is greenish, and contains jelly-like globules, or flakes; jelly-like stools.

Involuntary stools, with great exhaustion, in typhoid fever, is the great key-note for *Rhus*; the same in gastro-enteritis.

Stools of blood and mucus, worse nights, with great tenesmus.

"Diarrhœa with tearing pains down the legs; at every stool the pain streaks down the legs, which are powerless."—*G.*

"Constant tenesmus, with nausea and tearing pains in the intestines; is rheumatic and has to change his position often to get relief."—*G.* [Stools watery, mucous, and bloody.]

Sense of constriction of the rectum, as though one side had grown up; stools often like jelly, and excoriating.

Cholera infantum, typhoid type; the child is very restless at night; has to be moved often to get relief.

"Stools, watery; thin, red, mucous; yellow; bloody; jelly-like mucus; yellowish-white, fecal; involuntary; during typhoid from getting wet; cutting colic before stool; relieved after stool, by warmth, and continued motion."—*J. B. Bell, M. D.*

"The craving for cold milk, and the laborious dreams, are very characteristic of *Rhus*."—*Dr. J. B. Bell.*

"The stool is scanty, consisting of mucus, or a watery, jelly-like substance; yellow streaked with white, frothy and often mixed with blood; before stool, a burning in the rectum; after stool, all pains are relieved. Itching and burning in the rectum, with smarting blind piles."—*D.*

Urine.—Urine red and scanty; involuntary urination; or bloody, and discharged in drops; acute renal inflammation.

Snow-white sediment in the urine (urate of ammonia).

"Urine high colored, scanty, irritating; becomes turbid."—*Hah.*

"Retention of urine; back-ache, can not keep quiet."—*Hg.*

"Urine voided slowly; spine affected from getting wet."—*Hg.*

"Tearing in region of kidneys; œdema, after being wet."—*Hg.*

"Tenesmus vesicæ, discharges drops of blood-red urine."—*Hg.*

Urine involuntary at rest and at night; rheumatic paralysis.

Sexual Organs, Male.—Erysipelatous inflammation of the whole generative apparatus; the scrotum becomes thick and hard, with intolerable itching. No drug in the *Materia Medica* has such a tendency as *Rhus* has to produce inflammation and œdema of these organs.

"The scrotum constantly became thicker and harder, with intolerable itching, extending toward the anus; and sticking pains in the inflamed prepuce."—*Hartlaub and Trinks.*

"Swelling produced by serous infiltration of the cellular tissue, redness of the cutis, followed by vesicular eruption, which forms a light scab or small white scales; the moisture exuded is limpid and acrid."—*D.*

Sexual Organs, Female.—Menses too early and too profuse.

"The menstrual discharge causes a violent pain in vulva."—*G.*

"Membranous dysmenorrhœa, in rheumatic females."—*G.*

"Menorrhagia from a strain; in rheumatic females, worse at night; must change position often to get relief, and aggravated on change of weather."—*G.* [Rheumatic element predominates.]

"Is particularly indicated where repeated drenchings in the rain have deranged the uterine functions."—*G.*

"After labor, a vitiated discharge continues from the vagina, with shooting upward in the parts, and a bursting sensation in the head."—*G.* [Pelvic cellulitis in rheumatic females.]

"The lochial discharge lasts too long, is thin, offensive, and occasionally bloody."—*G.* [Semi-rheumatic paralysis.]

"For weeks after delivery, has much pain on the right limb, with numbness from the hips to the feet."—*G.* [Varicose veins.]

"Abortion from a strain; pains worse in the last part of the night; very restless, has to change often to get relief."—*G.*

"For weeks after delivery, has a terrible cough, which seems as if something would be torn out of the chest."—*G.*

"The breasts are painfully distressed, red in streaks, with a rheumatic condition of the whole body."—*G.*

"Intense itching and burning of the mons veneris, with watery vesicles, and stitching pains in the vagina."—*G.*

Erysipelatous inflammation of the genitalia.

"Amenorrhœa from getting wet;—with milk in breasts."—*Hg.*

"Milk leg; typhoid metritis after delivery."—*Hg.*

Respiratory Organs.—Ichorous or yellow discharge from the nose, nostrils sore, with hot breath; great thirst.

"Hoarseness, scraping, raw sensation in larynx."—*Hah.*

"Frequent tickling in air-passages, provoking cough."—*Hah.*

Tickling under the sternum that excites cough.

"Acute catarrh; the nasal, laryngeal, tracheal, and bronchial passages seem stuffed up, commencing at about sunset, with sneezing, and dry, hard, tickling cough, continuing very severe until midnight, when all the sufferings are relieved; renewed next morning."—*Dr. Boyce.*

"Terrible cough, which seems as if it would tear something out of the chest."—*G.* [Rheumatic in origin.]

"A dry, teasing cough, coming on first before the chill, and continuing during the chill."—*D.*

"Putting the hand out of bed, brings on the cough."—*Hg.*

For acute cases of cough, with much prostration of the whole system, and for dry, racking, hard rheumatic coughs, where the case is apt to take on a low typhoid form, and is greatly aggravated at night, *Rhus* will be found of great value. In pneumonia, with brick-dust expectoration, or bloody sputa raised with great difficulty, accompanied with low typhoid symptoms.

"Pneumonia, adynamic type; free expectoration of thin, pus-like secretion, stained deeply with blood."—*Jahr.*

Brick-dust expectoration of bloody sputa, raised with great difficulty, and accompanied with high fever, involuntary diarrhœa, in the worst cases of pneumonia.

"Hæmoptysis, from over-exertion, blowing wind instruments; blood bright red; pain in lower part of the chest, renewed from the least mental exertion."—*Hg.* [Rheumatic phthisis.]

"Respiration hurried; oppression, anxiety, as if she could not get her breath."—*Hah.* [In rheumatic pneumonia.]

"Oppression of the chest, at night, with sticking pains, especially on breathing."—*Hah.* [Rheumatic pleurisy.]

"With anxiety as if she felt a weight on the lower portion of chest, so oppressive that she breathes with difficulty."—*Hah.*

"Palpitation of the heart, so violent while sitting still that the body moves with every pulsation."—*Hah.* [Rheumatism.]

"Organic diseases of the heart, with sticking pains and soreness, numbness, and lameness of the left arm."—*Hg.*

Neck and Back.—"In region of the neck and back, we find stiffness of the nape and entire neck, with tensive pain and crying out on moving. The sacral region is stiff when he moves, but pains when sitting, as if he had been stooping; stitching and pressing pains."—*D.*

"Pain between the shoulders when swallowing."—*G.*

"Stiffness of the small of the back; pain as if bruised, in the small of the back, whenever he lies quietly upon it, or sits still; on moving about he feels nothing."—*Hah.*

"Heaviness and pressure in the small of the back as if one had received a blow, while sitting."—*Hah.*

"A pressure as with a cutting edge across the small of the back, while standing and bending backward."—*Dr. Franz.*

"Soreness in every muscle, which passes off during exercise."—*Dr. J. S. Linsley.*

Extremities.—"All the limbs feel stiff and paralyzed during and after walking, with a sensation of a hundred-weight upon the nape of the neck."—*Dr. Franz.* [Rheumatic paralysis.]

"Trembling of arms after moderate exertion of them."—*Hah.*

"The limbs upon which he lies, especially the arm, fall asleep; violent tearing pain in the arm, most violent when still."—*Hah.*

"Sticking and drawing in the left arm, extending from above downward, and out at the tips of the fingers."—*Dr. Helbig.*

"Pain in the left upper arm as if the muscles or tendons were unduly strained, when the limb is raised up."—*Dr. Joslin.*

"Jerking tearing in the elbow and wrist joints, during rest, better during motion; loss of power and stiffness of the fore-arms and fingers on moving them."—*Hah.*

"A powerless sensation in the upper part of the right fore-arm, on motion, and a pain as if sprained in the wrist when grasping anything."—*Dr. Franz.*

"Rapidly increasing swelling of the fore-arm, which has acquired twice its normal volume; skin rough; itching intolerable; heat very great, with loss of power of the arms."—*Trousseau.*

In rheumatism with great swelling of the hands, if brought on from wet weather, *Rhus* is our best remedy.

"When grasping anything, feeling as if pins were pricking tips and palmar surface of fingers."—*Dr. Berridge.*

The axillary glands are inflamed and swollen.

"Tensive, aching pains as if the arms were luxated."—*Joslin.*

These rheumatoid pains affect every part of the body, especially the limbs and joints, and are all aggravated by rest, and relieved by motion.

Lower Extremities.—"Lameness and stiffness, and pain on first moving after rest, or on getting up in the morning, relieved by continued motion."—*Hg.*

"Great weakness of the legs, while walking in the open air, he is scarcely able to proceed, because they are so heavy and weary; after sitting an hour, all weariness disappeared; great weariness in the legs while sitting, disappeared on walking."—*Hah.* [Rheumatic paralysis.]

"Aching pains in the legs, inability to rest in any position but for a moment."—*Dr. N. M. Payne.* [Rheumatism.]

"A pressive pain in both hip-joints on every step, and a paralyzed sensation in the anterior muscles of the thighs."—*Hah.*

"When lying upon the side the hips hurt; and, when lying upon the back, the small of the back hurts."—*Hah.*

"Stiffness, tension of knees as if they were too short."—*Hah.*

"Heaviness like a hundred-weight, in the hollows of the knees and in the calves, so that he could not move the feet."—*Hah.*

"Tearing in knees and ankles, worse during rest."—*Dr. Rukart.*

"Pain like a tingling in the tibia at night, while the feet are crossed; she is constantly obliged to move the legs back and forth, and is unable to sleep."—*Hah.*

"Sciatica, right side, dull aching pain, worse at night, in cold or damp weather; relieved by rubbing, heat, and when warmed by exercise; numbness and formication."—*Hg.*

"Swelling and stiffness of joints from sprains, overlifting, or overstretching."—*Hg.* [Acute inflammatory rheumatism.]

"Phlegmonous erysipelas of the limbs."—*Hg.*

"The feet painful as if sprained, in morning on rising."—*Hah.*

Aching pains in the ankles and hollow of the feet on walking, so that he must lie down after the least walk.

"Stitches in the soles of the feet as if he were walking upon needles, in the evening."—*Hah.* [Chronic rheumatism.]

"Great restlessness, she could not sit still on account of internal uneasiness, but was obliged to move in every direction to get relief."—*Hah.* [Nervous fevers.]

"Swollen about the ankles, after too long sitting; feet swell in the evening."—*Hg.* [Rheumatic œdema.]

People that travel too much, have swollen ankles (œdema).

Inflammatory rheumatism, aggravated by rest, compelled to

change position frequently, especially after midnight, which produces intense pain; sour perspiration.

"The cold, fresh air is not tolerated, it seems to make the skin painful. (This symptom is of inestimable value in treating rheumatic patients.)"—*D.*

Skin.—Vesicular eruption on any part of the body; burning and redness over large cutaneous surfaces, which soon swell up and become covered with watery vesicles, accompanied by almost intolerable itching, with a tendency to invade large surfaces, rather than to penetrate deeply into tissues; itching intolerably.

"Rubbing the affected parts increases the eruption."—*G.*

"Erysipelas with numerous vesicles, that burst, discharging a slimy liquid; after the lapse of twenty-four hours, itching and burning commenced, lasting hours; after about thirty-six hours, swelling of the parts, with violent itching and burning, increased on touching or moving the parts affected, as if pierced by hot needles."—*Dr. N. M. Payne.*

"Covered from head to foot with a fine red vesicular rash, itching and burning terribly, especially in the joints: worse at night, causing constant scratching, with little or no relief, which felt very hard upon pressure; skin burning hot."—*C. Le Beau, M. D.*

"The face became red, enormously swollen, and œdematous, then also the hands and skin of the whole body became covered with a scarlet-like exanthema, with intolerable itching and biting; on the fourth day, the backs of the hands and legs became covered with blisters, that burst and slowly desquamated; violent vesicular erysipelatous inflammation of the face and hands, attended with high fever."—*Dr. Raue.*

"Great swelling of the face, double its natural size; regular phlegmonous inflammation."—*Dr. DuFresnoy.*

"Eczema; surface raw, excoriated; thick crusts; oozing and offensive; burn and itch much."—*Hah.* [Use the cerate locally.]

"Urticaria, from getting wet; during rheumatism; chills and fever; worse in the cold air."—*Hg.* [Of great value.]

"Pemphigus; each bulla with a red areola."—*Hg.*

Carbuncles and boils; malignant and gangrenous.

"Variola, eruption sinks and turns livid; typhoid form."—*Hg.*

"Scarlatina, miliaria; rash dark, fever high; drowsiness and restlessness."—*Hg.* [In the malignant form, of great value. No remedy known to the profession can equal *Rhus* for scarlatina. It will cure seventy-five out of a hundred cases. Œdema of the fauces, soft palate, and uvula; vesicular eruption, with great

itching and burning; secretions acrid, and fever of a malignant type. Cold air is not tolerated.]

Fever.—The fever of *Rhus* is marked, and of an adynamic type, with symptoms of erethism, excitement, and orgasm.

Dr. Wurmb says: "The patients are generally strongly built persons who have hitherto been healthy; the typhoid for the most part comes on suddenly, runs a rapid course of a few days, to a high degree of development. At the same time with the disturbances in the vascular system, there is felt a strong sensation of illness, which advances at a more rapid rate than the other symptoms do; for example, actual debility is not so great as the sensation of debility, inasmuch as tolerably rapid and forcible motions are still capable of being made. (N. B.—During convalescence, the contrary condition obtains; the patients take themselves to be stronger than they really are.)

"Soon, however, the forces fail; movements become difficult and feeble, and the patients are constrained to lie quietly in bed, in one place. They complain of aching in the limbs, and sometimes of violent pain in some joint or other, as in rheumatism; all symptoms aggravated in cold, damp weather.

"These disturbances do not long continue alone; there are soon associated with them irregularities in the vascular system; viz., in the beginning, gentle, fugitive chills and heat, but especially heat of the head; at a later period, the heat predominates, and at last it becomes continuous and is very violent; there is a tendency to a rush of blood to the head; roaring sounds in the head; the face is burning hot to the touch; the eyes shine and are moderately injected; the cheeks, lips, and tongue are of a deep red color; the thirst is very great; the pulse 110 to 112 in a minute; the temperature elevated. Even at the beginning of the vascular excitement hemorrhages occur, especially from the nose, and in women, from the genitals. The former almost always afford relief; the latter, which are generally mistaken for the menstrual flow, last but a few hours, or, at the most, a day, and produce no change in the condition of the patient.

"The symptoms of a change in the composition of the blood appear in a moderate degree only and somewhat later. There appear upon the skin small ecchymoses; the expectoration has a bloody tinge; the stools rarely contain blood. The nervous functions are always powerfully affected; they are oppressed and restricted. The organs of sense, are, in the beginning, in a condition of over-excitability. There is a great sensibility to light,

noise, etc. At a later period, the opposite condition obtains; the patients become insensible to external influences, complain of nothing whatever, and lie in a condition of atony."

Slow fevers; tongue dry and brown, or red, as if it had been skinned; sordes on the teeth; bowels loose; great weakness; powerlessness of the lower limbs, can hardly draw them up; with great restlessness after midnight; has to move often to get relief.

"Soreness as if beaten in the hypochondriac region, and still more in the abdomen; worse in the side on which he lies; worse when turning, and more when beginning to move."—*Hah.*

"Fever about 6 p.m., warmth of the body, with internal and external heat of the head, and shivering over the body, without thirst; at the same time stretching, drawing weakness in the limbs; headache like a dullness and compression in the side of the occiput; together with violent cough; very short breath, and pain in the throat, as if the tonsils were swollen; slight perspiration over the whole body toward morning."—*Hah.*

"Constant chilliness as if cold water was poured over him, or as if the blood was running cold through the veins, 7 p. m., feels cold when he moves; followed by general heat, as from hot water, or hot blood running through the veins."—*Hg.*

"Sweat, during the heat; violent itching of the eruption."—*Hg.*

Sour, musty, or putrid sweat, especially mornings, in rheumatism, is a marked characteristic of *Rhus*.

Profuse sweat, odorless but not exhausting, in the morning.

It acts especially on the right side of the body, and is of great use in cases arising from excessive bodily exercise, bruises, falls, sprains, and from getting wet when heated.

Aggravation.—While at rest; on beginning to move; before a storm of rain, especially from getting wet while perspiring; cold, wet weather; after midnight; from anything cold; from sprains; at night, and from getting wet or damp in cold places, or in winter.

Amelioration.—From continuous motion; in moving the affected parts; in warm, dry weather; from wrapping up the head or parts; from warm or hot things; after breakfast; during the day; change of position; from stretching out the limbs, and motion in the open air.

ROBINIA PSEUDO-ACACIA.**Black Locust.**

Habitat: America, etc. Tincture of the fresh bark of young twigs, Class III.

Antidotes.—Camph., Ipecac., Cham., Coffee.

Through the cerebro-spinal system, Robinia has two special centers of action :

- I. VAGI. (CENTRIC.) *Nausea and Vomiting (Excessively Acid).*
- II. GASTRO-INTESTINAL CANAL. *Indigestion; Excessive Irritability.*

Pneumogastric Nerve.—The action of Robinia upon the vagi is probably at their origin in the base of the brain. Through this nerve, it acts as a powerful emetic, and produces the most acid state of the stomach of any remedy in the *Materia Medica*. This was noted when I first introduced the remedy to the profession; and all who have used it testify to this fact. The vomited matter is so intensely sour that the teeth are set on edge.

Gastro-Intestinal Canal.—The great depression of the vagi produces such excessive acidity that digestion is arrested and there are all the symptoms of indigestion, with flatulence, constipation, and excessive irritability, equal to that of *Chamomilla*.

Therapeutic Individuality.

Digestive Organs.—Robinia is especially useful in gastric diseases and sick-headache.

Excessive acidity of the stomach. In infants, the whole child smells sour from the excessively acid secretions.

Vomiting of intensely sour fluid, setting the teeth on edge.

Frequent eructations of sour fluid; indigestion.

"Water taken before retiring at night, returned in the morning green and sour."—*Dr. Smedley*. [Indigestion.]

Sour eructations of infants; the whole child smells sour.

Dull, heavy, squeezing pains in the stomach, especially after every meal; with nausea and acid vomiting.

Nausea, with vomiting of intensely acid fluid in migraine.

Great distention of the stomach and bowels, with flatulency; the intestines distended almost to the point of rupturing, with severe colic, and acid diarrhœa.

Sour stools of infants, the whole child smells sour (Calcarea).

Robinia has proved of great value in cholera infantum, where the child smells intensely sour; the stools green and watery; with much tympanitis; colic; and accompanied with excessive irritability of the patient. (Like Chamomilla.)

Desire for stool, but only flatulence passes off; finally, constipated stool; from indigestion.

Diarrhœic stools, yellow, green, burning, with nervous agitation, weakness, cold sweat, and dyspnœa.

Low spirited, with excessive irritability, from indigestion. Robinia has cured many old, obstinate cases of dyspepsia, with excessive acidity and flatulence.

Head.—Dull frontal headache; much aggravated by motion, with neuralgic pains in the temples; migraine.

For sick-headache, with eructations and vomiting of excessively acid secretions, this is a capital remedy, especially if the patient is very irritable and desponding.

Aggravation.—Motion, pressure; afternoon, and at night.

Amelioration.—Quiet; and in the morning.

RUMEX CRISPUS.

Yellow Dock.

Habitat: Europe, America, etc. Tincture of fresh root in Spring, Class I.

Antidotes.—Camph., Bell., Hyos., Con., Lach., Phos.

Through the vegetative nervous system, Rumex Crispus has four special centers of action:

- I. MUCOUS MEMBRANES. (LARYNX, TRACHEA.) *Hyperæsthesia.*
- II. SKIN. *Herpes; Scabies; Greatly Aggravated by Cold Air.*
- III. LYMPHATICS. *Hypertrophy; Secretions Acrid.*
- IV. DIGESTIVE ORGANS. *Morning Diarrhœa.*

Mucous Membranes.—The action of this drug is upon nearly all of the mucous membranes; but its main action is centered upon the mucous membrane of the larynx and trachea, diminishing its secretions, and exalting in a very marked degree its sensibility, similarly to the action of Belladonna, Conium, Lachesis, Causticum, and Phosphorus. "Rumex diminishes the secretions,

and at the same time exalts, in a very marked manner, the sensibility of the mucous membranes of the larynx and trachea, exceeding in extent of this exaltation, any remedy known to us. The cough, therefore, is frequent and continuous, to an extent quite out of proportion to the degree of organic affection of the mucous membrane. It is dry, occurs in long paroxysms, or, under certain circumstances, is almost uninterrupted. It is induced, or greatly aggravated, by any irregularity of respiration, such as a respiration a little deeper or more rapid than usual; by an inspiration of air a little colder than usual; by irregularity of respiration, or motion of the larynx and trachea, and by external pressure. The subjective symptoms are rawness and soreness in the trachea, extending a short distance below the supra-sternal fossa, and laterally in the bronchi, provoking the cough. This tickling is very annoying and persistent, and only partially relieved by coughing. The cough occurs chiefly, or is much worse, in the evening after retiring, and at the same time the trachea is particularly sensitive to cold air, so that the patient often covers the head with the bedclothes to avoid the cold air of the apartment, and refuses to speak, or even to listen to conversation, lest his attention should be withdrawn from the supervision of his respiratory acts, which he performs with the most careful uniformity and deliberation, and all in the hope of preventing the distressing tickling and harassing cough."—*Dr. Dunham.*

By its action upon the digestive mucous membrane, it produces diarrhœa (more so mornings).

Skin.—Rumex causes an intense itching of the skin, which is greatly increased by exposure to cold air; and it has proved of great value in scabies, herpes, and many chronic skin diseases.

Lymphatic System.—The lymphatics become enlarged, and their secretions perverted. Rumex has been found useful in scrofulous enlargement of glands, and ulceration in various parts of the body.

Therapeutic Individuality.

Respiratory Organs.—Through the superior laryngeal nerve, the sensibility of the mucous membrane of the larynx and trachea becomes greatly exalted. This is the ruling characteristic for the use of Rumex.

"Violent, incessant, dry, fatiguing cough, with little expectoration; aggravated by pressure, talking, and especially by inspiring cool air, and at night."—*D.*

"Raw pain under each clavicle while hawking."—*Blair*.

"Sense of excoriation behind the sternum; the left chest is more often affected than the right."—*D*.

The most violent cough is a few moments after lying down, and at night. In some cases, there is complete aphonia.

This remedy is especially useful in affections of the larynx and trachea. It may well be called a specific for that dry, teasing cough noted above, preventing sleep.

Stool.—A brown, watery diarrhoea occurring early in the morning, with rumbling in the umbilicus, and colic before stool, is a marked indication for this drug.

In General.—Very sensitive to the open air, especially if cold. Great languor and restlessness in the evening.

Aggravation.—From cold, damp, raw weather; and the cough, especially in the evening, from cold air, and on lying down; the diarrhoea early in the morning, driving the patient out of bed.

Amelioration.—Through the day; after eating; and the cough, from warm air, and being covered up.

SABINA.

Common Savine.

Habitat: Europe, Asia, America, etc. Tincture of the fresh leaves, Class III.

Antidotes.—Camph., Puls., Secal.

Through the cerebro-spinal nervous system, Sabina has six special centers of action:

- I. GASTRO-INTESTINAL C. *Violent Inflammation; Stools of Blood.*
- II. MUCOUS MEMBRANES. (INTESTINAL.) *Acute Inflammation.*
- III. URINARY ORGANS. *Acute Inflammation; Albuminuria.*
- IV. SEXUAL O., FEMALE. *Congestion; Inflammation; Abortion.*
- V. CIRCULATION. *Small Doses Stimulate; Large, Paralyze.*
- VI. FIBROUS TISSUE. *Arthritis; Condylomata.*

Gastro-Intestinal Canal.—Sabina, in large doses, is a violent irritant to the gastro-intestinal canal, producing intense conges-

tion; nausea and vomiting; inflammation of the intestinal mucous membrane, extending to the peritoneum; with intense pain; purging, and death.

"Two drachms of powered Savine were given to a terrier dog in his food. In two hours and a half, it began to vomit, and continued to do so, at intervals, for an hour and a half. It then lay down exhausted, and in two hours afterward was found in the same position, insensible and comatose, with a slow, laboring pulse. In this condition, it remained for eight hours, passing a good deal of blood by stool. At the expiration of fourteen hours, the animal died. The brain was found gorged with blood; the lower bowels were highly congested, and contained blood. In most cases of poisoning, in man, signs of violent inflammation of the intestinal mucous membrane and of the peritoneum were detected after death."—*Stille*.

Urinary Organs.—Large doses act powerfully upon these organs, producing congestion, inflammation, great strangury, and voiding of large quantities of bloody urine, which is often albuminous. In some cases, the urine is completely suppressed. The first effect is to greatly increase the flow of urine, due to increased blood-pressure in the kidney.

Ovario-Uterine Organs.—The first effect of Sabina upon these organs is that of a powerful stimulant upon the vascular system of the ovaries and uterus. This is most beautifully shown in its power of arresting menorrhagia and metrorrhagia. Toxic doses have a powerful action upon the uterus, producing congestion, inflammation, hemorrhage, and in the pregnant, abortion and death. Its use as an *abortifacient* is accompanied by the gravest dangers to life. It is only by the production of violent irritation of the gastro-intestinal canal, and pelvic organs, that the pregnant uterus can be stimulated to expel its contents; and such doses often produce death. Bartholow says: "The evidence is conclusive that Savine exerts a powerful influence on the uterine system. It increases the menstrual flux, and in toxic doses may originate uterine action and cause abortion."

"This drug acts as a tissue irritant to the ovaries and uterus, the latter in particular, causing primarily intense active congestion, inflammation, and disorganization; and, secondarily, passive congestion or anæmia, with torpor and actual paresis. It is, therefore, homœopathic to sterility, with excessive uterine irritation, frequent and profuse menses, acrid leucorrhœa, ulceration; as well as sterility from uterine torpor, chronic congestion, ulcer-

ation, amenorrhœa; very scanty menses or passive metrorrhagia."—*Hale*.

Dr. Hale thinks the lumbar center is first attacked in the action of Sabina, and the cerebral center by reflex action.

"A case is reported by Mohrenheim of a pregnant female who took an infusion of Savine to produce abortion. It caused incessant vomiting, and some days afterward excruciating pains, abortion, flooding, and death. Rupture of the gall-bladder was found on examination of the body, and bile in the abdominal cavity, with peritonitis."—*Stille*.

Circulation.—Sabina has quite an action upon the heart and circulation, as shown by many cases of poisoning. Sphygmographic tracings show that the primary action of the drug is powerfully stimulant, and that it is followed by debility and languor.

Fibrous Tissues.—"Sabina has the power to produce an arthritic diathesis, with condylomata; and, in the provers, it has caused an unusual number of symptoms relating to the joints, even so far as to set up heat, redness, and swelling. It has been used in both schools for what are vaguely called 'arthritic affections.' The connection which has recently been traced between rheumatic gout and the uterine functions makes it probable that this is the malady in which, especially when recent, Sabina would be curative. I have used it once or twice upon these indications, with satisfactory results. It has occasionally relieved the paroxysm of true gout."—*Hughes*.

Therapeutic Individuality.

Sexual Organs, Female.—"Especially adapted to plethoric women, whose menses are habitually profuse, with drawing and tearing pains from the back through to the pubes."—*G*. [This drawing pain from back to pubes is a marked key-note for Sabina.]

"Metrorrhagia of clotted and fluid blood, with pain extending from the sacrum, or lumbar region, to the pubes."—*G*.

"Especially useful in protracted uterine hemorrhages, arising from a loss of tone in the vessels of the uterus, whether from disease, or the weight and pressure of the fœtus in utero; blood dark and clotted."—*G*. [Gouty subjects.]

"Hemorrhage after abortion or parturition; the blood dark, having blackish clots, mixed with thin, watery blood; the pain extends from the back through to the pubes."—*G*.

Excessive, debilitating menses, with abdominal spasms; the blood is partly fluid and partly clotted, with great pain in the sacrum, extending through to the pubes; gouty females.

"The menses appear without pain, but are three or four times more profuse than usual."—*Hah.* [Rheumatic subjects.]

Excessive uterine hemorrhage; contractive labor-like pains.

Walking lessens the flow of the menses.

"Suppression of the menses is followed by a thin, fetid leucorrhœa."—*G.* [In arthritic females.]

"This is one of the best remedies we have to prevent abortion, at about the third month. Should be given in the 200th."—*G.*

"Dysmenorrhœa, with violent pain extending from the back through to the pubes."—*G.* [Rheumatic in origin.]

"Yellowish, ichorous, fetid leucorrhœa, and painful discharges of fetid blood every two weeks."—*G.* [At the climacteric.]

"Leucorrhœa, after suppression of the menses; inclining to be corrosive, with much itching of the vulva."—*G.*

"Copious starch-like leucorrhœa, with drawing pains in the broad of the back through to the pubes."—*G.*

"She is very nervous and hysterical, and, if she becomes pregnant, is almost sure to abort about the third month."—*G.*

"Dystocia; pain of an uneasy, bad feeling, extending from the sacrum through to the pubes."—*G.* [In rheumatic, gouty females.]

"Almost insatiable desire for an embrace."—*Hg.*

"Condylomata in joints, with sore, burning pains."—*G.*

Metritis after labor, with severe after-pains, from back to pubes.

Sexual Organs, Male.—"Sexual desire increased, with violent erections."—*Hg.*

"Inflammatory and rheumatic gonorrhœa, with discharge of pus."—*Hg.*

"Sycotic excrescences, with burning soreness."—*Hg.*

Prepuce inflamed, and very painful; rheumatic gonorrhœa.

Urinary Organs.—"Diminished discharge of red urine, with strangury."—*Hg.*

Inflammation of the kidneys, with retention of urine, or discharge by drops, with burning; ardor urinæ, in rheumatic subjects.

Urine bloody and highly albuminous; arthritic subjects.

"Frequent urging to urinate, with profuse discharge."—*Hg.*

"Vesical irritability, depending on gouty diathesis."—*Hg.*

Digestive Organs.—"Quivering in the abdomen as if there was something alive in it, resembling foetal movements.

"Writhing and pinching in the abdomen; in the umbilicus; frequently recurring with increasing violence and a sensation as if vomiting would come on, without nausea."—*Buchner*.

"Diarrhœa, with pain extending from the back through to the pubes."—*G*. [In rheumatic, gouty females.]

"Frequent urging to stool; finally a liquid portion is discharged, followed by a hard portion."—*G*.

"Stools of mucus and blood, with frequent urging.

"Constipation; stools difficult and painful; pain from the back to the pubes."—*G*.

"Piles; discharge of bright red or dark venous blood, with pain from the back through to the pubes."—*G*.

"Sensation of swelling in the throat as if he had to swallow over a foreign body."—*Hah*. [Globus.]

"Dryness in the throat with drawing pain."—*Hah*.

"Desire for acids, with loss of appetite."—*Von Pleyel*.

Vomiting of undigested food and bile; during pregnancy.

Acid eructations; with burning in stomach; morning sickness.

Head.—"Music is intolerable to her."—*G*.

Great irritability of temper, with sour stomach, with great anxiety; hypochondriacal mood; rheumatic subjects.

"Great tiredness, with a feeling of deep-seated trouble, which makes him melancholy and sad."—*Hg*. [Gouty subjects.]

"Painful sensation in the right frontal eminence and temple, as if the parts were pressed asunder; it comes suddenly, disappears gradually, and recurs frequently."—*Hartmann*.

"Sense of painful stricture over the temples."—*Hartmann*.

"Vertigo when standing, as if she would fall, with obscuration of sight."—*Hah*. [At the menstrual period, in rheumatic females.]

Back.—"Drawing pains in the small of the back, extending into the pubic region."—*Hartmann*. [Very characteristic.]

"Constant paralytic pain in the small of the back, obliging him to bend the back inward."—*Trinks*.

Extremities.—"Pain as if sprained in the right shoulder joint, even during rest."—*Hah*. [Chronic rheumatism.]

"Paralytic tearing along the right upper arm."—*Dr. Hermann*.

"Pain in the right radius, increased by motion or touch."—*Hah*.

"He found Sabina the most efficient remedy in gout; and, since it produces condylomata, it may be suspected that this malady, so much dreaded by our fathers, may have a syctic anamnesis."—*Boenninghausen*.

"Chronic arthritis; can not bear a heated room; better in cold air."—*G.*

"The middle of the anterior surfaces of his thighs feels bruised and painful."—*Gross.* [In rheumatic, gouty subjects.]

"Tearing pain in the metatarsal bones."—*Hartmann.*

"Painful drawing in the joints of the right toes; worse from walking."—*Hah.*

Great weakness and weariness of the limbs, with tearing pains at night, when very warm; better in cold air.

Aggravation.—From warm air; in warm room or in bed; morning and night.

Amelioration.—In open, cool, fresh air; during the day, and from cold.

SAMBUCUS NIGRA.

Common Elder.

Habitat: Europe, America, etc. Tincture equal parts of fresh leaves and flowers, Class I.

Antidotes.—Camphor, Arsenicum.

Through the cerebro-spinal nervous system, Sambucus has two special centers of action:

- I. MUCOUS MEMBRANES. (LUNGS.) *Catarrhal Inflammation.*
- II. SKIN. *Powerful Sudorific.*

Mucous Membranes.—Sambucus acts upon the respiratory mucous membrane, producing catarrhal congestion and inflammation, asthmatic phenomena, and laryngismus stridulus.

Skin.—Upon the skin, it acts as a powerful sudorific.

Therapeutic Individuality.

Respiratory Organs.—Very useful in catarrhal affections of the air-passages.

Whooping-cough, suffocative in character; expectoration by day, at night scanty and tough; whooping-cough.

Suffocative attacks; asthma of Millar.

Suffocative asthma, after midnight; much mucus in bronchi.

"In suffocating cough of children, waking them up in the middle of the night; accompanied by rough sibilant, wheezing, and great dyspnoea."—*Dr. Bayes*. [Acute capillary bronchitis.]

"Hoarseness with much tenacious mucus in larynx."—*Franz*.
Fever from catarrh of the respiratory organs.

Skin.—Profuse, debilitating night sweats. (Characteristic.)

"I have found it of great use in checking debilitating perspirations which often retard convalescence after delivery."—*Hughes*.

Aggravation.—During rest, and mornings.

Amelioration.—From motion, and sitting up in bed.

SANGUINARIA CANADENSIS.

Blood Root.

Habitat: America, etc. Tincture of the green or dried root in fall, Class IV.

Antidotes.—Camph., Rhus tox., Op.

Through the cerebro-spinal system, Blood root has eight special centers of action:

- I. MUCOUS MEMBS. (LUNGS, STOMACH.) *Acute Inflammation.*
- II. STOMACH. *Violent Emesis; Acute Infl.; Increased Secretion.*
- III. LIVER. *Stimulated; Increased Biliary Secretion*
- IV. GLANDS. *Copious Salivation.*
- V. CEREbro-S. S. *Paralysis of Resp. Center; Spinal Paralysis.*
- VI. HEART. *Inhibitory Paralysis; Blood-Pressure Lessened.*
- VII. VASO-MOTOR SYSTEM. (1) *Stimulated;* (2) *Paralyzed.*
- VIII. TEMPERATURE. *Always Lessened.*

Mucous Membranes.—The mucous membranes of the stomach and air-passages, especially the latter, are most powerfully affected. The secretions of the intestinal mucous glands are but slightly increased. In the air-passages, and especially the stomach, Sanguinaria excites a feeling of heat, and greatly increases the secretions of the mucous membranes. No remedy is more irritating to this tissue. Snuffed up the nose, it produces violent

sneezing; and large doses violently inflame the mucous membrane of the air-passages and stomach, causing intense burning of the stomach, with unquenchable thirst, great prostration, dimness of vision, vertigo, and collapse. In broncho-pneumonia, Blood root has proved of signal service; and the same can be said of it in catarrhal inflammation of the stomach and dyspepsia.

"It slows the respiratory movement, by prolonging the pause after respiration. This reduction is caused by a loss of tonos of the respiratory center. Small doses cause an irritation of the respiratory center, and consequently an increase in the number of respiratory movements."—*Dr. R. M. Smith.*

Digestive Organs.—Through the pneumogastric nerve, Sanguinaria has a specific and powerful action upon the stomach and liver. Small doses excite a feeling of heat in the stomach, and increase the secretion of the mucous membrane. In large doses, it is an active emetic, producing nausea, most violent vomiting, and active inflammation of the stomach; at the same time, greatly increasing the secretion of bile, and prostrating the muscles of the digestive organs, as shown by the great accumulation of gas in the stomach and bowels.

"In one experiment three grains, in another one grain, of Sanguinaria, when mixed with a small quantity of bile and water and placed in the duodenum, powerfully stimulated the liver. It rendered the bile more watery; nevertheless, it caused the liver to secrete more biliary matter in a given time. The secretion of the intestinal glands was slightly increased by these doses."—*Rutherford and Vignal.*

Glands.—It produces copious salivation. For its action upon the liver, see above.

Cerebro-Spinal System.—Its action is shown on this system by the vertigo, dilated pupils, clonic convulsions, anæsthesia, great prostration, and death. "Sanguinaria destroys life through paralysis of the respiratory center. It causes clonic convulsions of a spinal origin. It causes marked adynamia and prostration from its depressing action on the spinal ganglia and muscles. It produces reflex excitability through irritation of Setschenow's center and by ultimate paralysis of the spinal ganglia, from large doses. When introduced into the circulation, it diminishes muscular contractility."—*Dr. R. M. Smith.*

Circulation.—Through its action upon the pneumogastric nerve and the vaso-motor system, Sanguinaria first stimulates

the heart's action, which is soon followed by great depression, and irregular action of the heart.

"It produces, in cats, dogs, and rabbits, a fall of pulse and blood-pressure, the fall of the latter being preceded by a temporary rise after the administration of proportionally small doses. The fall of blood tension is caused by a paralysis of the vaso-motor center, and by a paralysis of the heart itself, probably of its muscular structure [through the vagi]. The temporary rise in the blood-pressure is due to irritation of the vaso-motor center, previous to its paralysis, by small doses. The reduction of the pulse is due to direct action of the poison on the heart through paralysis of its motor power. It always lowers the temperature."—*Dr. R. M. Smith.*

Therapeutic Individuality.

Respiratory Organs.—This is a precious remedy for cough, either in the sub-acute or chronic form, where the larger bronchial tubes are involved, and the stage of mucous secretion has been reached. The cough sounds very loose; but the secretion of mucus is expectorated with great difficulty, like *Kali bichromicum*.

"I prescribe it in a certain troublesome, harassing cough without marked inflammatory action, when you are uncertain whether you are dealing with a chronic bronchitis or an incipient tuberculosis. It has done me more good in pulmonary diseases than any other single remedy. Calcarea 200th, one powder before breakfast, and one powder of Sanguinaria 1st an hour after each meal, has procured me more reputation and business than any other one prescription I have ever made."—*W. H. Holcombe.*

For loose catarrhal cough, with offensive breath, headache, sore throat, red cheeks, and pains in the chest, threatening pneumonia, the 3d decimal of Nitrate of Sanguinaria is of wonderful efficacy.

"Sanguinaria has also, like Phosphorus, a feeling of emptiness and *goneness* in the region of the stomach; but it occurs particularly *after eating*. Flashes of heat to the face similar to Sulphur, but leaving behind them circumscribed red spots on the cheeks similar to hectic; constant *tickling* at the *entrance* of the *larynx*, causing *continuous* cough, which is worse in the *evening*, on *lying down*, with crawling sensation extending down beneath the sternum; chest sore and painful to the touch (Calcarea); sensation of *hot steam* passing from *chest* to *abdomen*, *cold hands* and *blue nails*. The *breath* and *sputa* smell *badly* even to the patient; *dysp-*

næa extreme; disposition to take a *long breath*, which is followed by intense pain in *right side* of chest. Great lassitude, especially in the *evening*; does not want to move or make any mental exertion; stools *predominantly loose*. The cough is relieved by passing flatus *upward and downward*."—*C. C. Smith, M. D.*

In pseudo-membranous bronchitis, Dr. T. Nichol places this remedy next to Kali bichromicum, and finds it difficult to give the differential diagnosis between the two drugs. He says: "When the sibilant rale predominates and the faint and almost absent mucous rale shows that the pseudo-membrane is closely adherent to the wall of the bronchial tubes, Sanguinaria should be given. Should the sibilant rale be less violent and the mucous rale indicate a less tenacious membrane, Kali bichromicum is in place. Both remedies should be given in material doses, for the high dilutions are veritably *high delusions* here."

Dr. Nichol claims no remedy can equal it in general membranous croup. The membrane is difficult to detach; constant and incessant dry cough on lying down at night, relieved by sitting up. This is a very useful remedy in inflammation of the lungs, bronchitis, and asthma; with tough, rusty-colored sputa; excessive dyspnoea; patient lies on his back, pulse small and quick; second stage.

"Dry cough, with tickling in the throat-pit, and a crawling sensation extending down beneath the sternum."—*Dr. Tinker.*

Persistent dyspnoea and inclination to take a deep inspiration.

"Intense burning pain between the breasts, most severe on the right side, in region of liver."—*Dr. H. H. Pilling.*

This burning is from inflammation of the stomach and liver.

"Sharp, piercing pain in the right breast; very difficult to take a full inspiration."—*Dr. Tinker.*

"Pain in right chest to shoulder, can hardly place hand on top of head."—*Dr. Tinker.*

In acute and chronic catarrh of the nasal mucous membrane, a snuff of Sanguinaria has been of great utility.

"Roundish or oval, whitish and raised patches on the mucous membrane of the nose, mouth, prepuce, and anus."—*Hg.*

"Cough with coryza, diarrhoea."—*Hale.* [Bilious pneumonia.]

"Aphonia with swollen larynx; rawness, burning ulcers, dry cough ceases when flatus is passed up or down; or as soon as diarrhoea ensues; wheezing cough, worse at night."—*C. C. Smith.*

Pneumonia with extensive hepatization; quick, small, frequent pulse; violent palpitation, and dyspnoea. (Of great value.)

Digestive Organs.—Ulceration of the mouth and fauces, mouth, gums, and throat feel as if scalded. Salivation.

"Sensation as if the throat were completely closed by swelling, with pain on swallowing, as if he would suffocate; throat very dry; tonsils inflamed, with tickling cough."—*Dr. Tinker.*

"Throat feels raw; mouth and throat feel almost denuded of mucous membrane, as if burned."—*Dr. Tinker.*

"In atonic, sub-acute, and chronic inflammation of the stomach."—*Dr. Tully.*

"No remedy is more decidedly homœopathic to acute *gastritis*. We have the terrible burning, the unquenchable thirst, pain, vomiting, and prostration that mark the disease."—*Hale.*

"For sub-acute and chronic dyspepsia, this is one of our most useful remedies, with pyrosis, rising of burning, corrosive fluid from the stomach; digestion is imperfect from deficiency of gastric juice; food undergoes chemical decomposition, and gases are evolved in large quantities; this flatus is raised with great difficulty. This irritation is reflected through the pneumogastric nerve upon the lungs, producing a sympathetic dry cough."—*Dr. Hunt.*

Longing for spiced food, or indefinite things. Dyspepsia.

"Nausea, with salivation and much spitting."—*Hg.*

Burning in the stomach, with bitter vomiting; gastritis.

"Sensation of emptiness in the stomach, with faint, feverish feeling."—*Fink.*

Burning in the stomach and acid pyrosis; dyspepsia.

"Vomiting of bitter water; of sour, acrid fluids; of ingesta; of worms."—*Dr. Tinker.*

"It arouses the liver; all cases of hepatic torpor, biliary concretions, chronic hepatitis, with burning pains."—*Dr. Coe.*

"Stools yellow, thin, undigested; much offensive flatus terminates the catarrh."—*Dr. Farrington.*

Jaundice, with nausea and vomiting. From malaria.

"Diarrhœic stools, mixed with much flatus."—*Dr. Tinker.*

"Stools watery, thin, fœcal, and undigested."—*Dr. J. B. Bell.*

Urinary Organs.—High-colored, bilious urine; or copious pale urine; urine loaded with phosphates in pneumonia.

Sexual Organs, Male.—Emissions caused from indigestion; with much irritability and prostration; very despondent.

Sexual Organs, Female.—Menses too early and too profuse, with sick-headache from occiput over to right eye. (Characteristic.)

Annoying flushings at the climacteric age; goneness in the stomach; and dyspnœa; very dyspeptic at the climacteric.

Morning sickness; excessively acid vomiting and despondency.

Head.—"Sick-headache; pain commences in the back of the head, rises and spreads over the head and settles down over the right eye, with nausea and vomiting; has to be in the dark and perfectly still."—*Hg.*

"Anxiety, irritability; can not bear to hear persons walk across the room."—*Dr. Farrington.* [Migraine, congestion severe.]

"Determination of blood to the head, with whizzing in the ears, and transitory feeling of heat; then a sensation as if vomiting would take place."—*Dr. B. Fincke.* [Sick-headache.]

Distressing vertigo on rising up, can not turn quick from fear of falling, with faintness, in gastric affections.

"Headache with nausea and chilliness; followed by flushes of heat, extending from the head to the stomach."—*Dr. Bute.*

"Headache as if the forehead would burst, worse from motion; sympathizes with the stomach, like sick-headache."—*Dr. Bute.*

Eyes.—Burning lachrymation, from catarrh; dilatation of the pupil; acute and sub-acute conjunctivitis.

"Tinnitus from congestion; ears hot; over-sensitive to noise."—*Farrington.*

"Supra-orbital right-sided neuralgia; relieved only by holding the head tight to the floor."—*Dr. Farrington.*

Ears.—Catarrhal affections of the inner ear and Eustachian tube, and for many throat affections which are so often the cause of deafness and otalgia."—*Dr. Woodyatt.*

"Pain like a flash of lightning on the back of the head."—*Dr. Neidhard.* [Epileptiform convulsions.]

"Headache with distention of the temporal veins, which were painfully sensitive to the touch; small spots on the head and temples are especially sore."—*Dr. Bute.*

Generalities.—"Burning of the palms of the hands and soles of the feet, compelling him to throw the bedclothes off the feet for the purpose of cooling them; evenings."—*Dr. Bute.* [See Sulphur. At the climacteric.]

"Rheumatic pains in the nape of the neck, shoulders, and arms."—*Dr. Bute.* [Especially in lung affections.]

"Burning heat, suddenly alternating with chilliness; feels suddenly warm, flying from the head to the stomach."—*Dr. Bute.*

Locally, the Nitrate of Sanguinarina is very useful in diseased mucous surfaces; ulcers and granulations.

Aggravation.—Morning, and especially evening; from noise, light; motion and open air.

Amelioration.—During the day; when quiet, and in the dark.

SARSAPARILLA.

Smilax.

Habitat: America, Mexico, etc. Tincture of the dried root. Class IV.

Antidotes. — Camph., Merc., Lyc., Nux vom.

Through the great vegetative nervous system, Sarsaparilla has three special centers of action :

- I. LYMPHATICS. *Alterative.*
- II. SKIN. *Tettery Eruptions; Yellow-brown Color.*
- III. KIDNEYS. *Lithiasis; Urinary Calculi.*

Lymphatics.—Upon this system, it acts as a general alterative, similar to Mercury, and has been found of great use in scrofulous affections and in tertiary syphilis.

Skin.—Tettery eruptions, and yellow-brown color of the skin.

Kidneys.—Here is one of the most important centers for the action of this drug. It produces symptoms similar to gravel, and has been found of great utility in this disease.

Therapeutic Individuality.

Urinary Organs.—Frequent discharge of pale, copious urine.

"Urine too often, copious and pale, or turbid, scanty, slimy, clayey and sandy."—*Nenning*. [Of great value in gravel.]

"On urination, it is ineffectual, with pain in lower back, going forward; distention of abdomen; severe tenesmus."—*Dr. Berridge*.

"Has to get up two or three times in night to urinate."—*Hg.*

"Much pain after urinating; unbearable in women."—*G.*

Dr. Hering gives many testimonies to the efficacy of this drug to relieve the sufferings attendant on gravel, especially with rheumatic symptoms.

"Passes gravel or small calculi; blood with the urine."—*Hg.*

"Sand in the urine or on the diaper; the child screams before and when passing it."—*Hg.* [Excess of uric acid.]

"Tenesmus of the bladder, with discharge of acrid pus and mucus."—*Hg.*

Skin.—Its action upon the skin is of great value, especially in eruptions following vaccination, as well as in boils and eczema.

"Great emaciation; the skin becomes shriveled, or it lies in folds."—*Lippe*. [From chronic lithiasis or marasmus.]

"Nipples become retracted and insensible."—*Dr. H. C. Allen*.

Old syphilitic patients whose condition seems hopeless; whose constitutions have been undermined by want of nourishment, or by excesses, and who have gone through many courses of Mercury, whose irritable mucous membrane will not bear any more "Iodide of Potash, and who are so sallow, so worn, so broken down, so eaten up by disease, as to seem fit only for the grave. Give from twelve to sixteen ounces of decoction daily."—*Dr. Clifford Allbutt*.

Dr. Teste claims that it will actually change red hair to a light flaxen color, used in the 18th dilution.

Scrofulous affections, with excessive emaciation of the body, and in chronic abscesses attended by profuse discharge.

Asthma.—Smoking the root has often relieved asthma.

Aggravation.—Morning; from cold air and yawning.

Amelioration.—Evening, and motion.

SCUTELLARIA.

Skull-cap.

Habitat: North America, etc. Tincture of the fresh plant, Class III.

Through the animal nervous system, Skull-cap has one special center of action:

I. CEREbro-SP. SYSTEM. *Excessively Hysterical; Hyperæsthesia.*

Cerebro-Spinal System.—The action of this drug would seem to be upon the excito-motor part of the animal nervous system. "It appears to manifest itself more particularly upon the gray nerve tissue; and, hence, it is adapted to, and exerts a wonderful power in, most of the difficulties which originate in a pathological condition of this structure. . . . It is of great virtue in fevers and other affections where the gray nerve tissue has undergone partial degeneration and disintegration, or where the nerve force is impaired by this peculiar pathological change. In subsultus

tendinum following fevers, in delirium tremens, and other spasmodic affections, as epilepsy, catalepsy, and especially *hysteria*, this remedy is of vast importance. It is of great value as a tonic to the nervous system where there is general nervous debility, either from uterine disease, or other constant irritations of the nervous system."—*Prof. Payne*.

Therapeutic Individuality.

General Indications.—This is one of our best remedies for hysteria, where the motor nerves and sensorium are much affected, with extreme nervous excitability. Many remarkable cures have been made with the Scutellarin.

"Especially useful in cases of depression of the nervous and vital powers after long sickness, over-exercise, excessive study, or long-continued, exhausting labors."—*Dr. King*.

"I have found it useful in sleeplessness, night terrors, hysteria, delirium tremens, nervous agitation from pain, or exciting emotions; but it is valuable in cerebral irritation in teething children, or from intestinal irritation."—*Hale*.

"The irregular action of the heart is due probably to derangement of the cardiac plexus. In the cerebral diseases of infancy, this irregularity is often noticed."—*Hale*.

"The tremulousness and twitching of the muscles, show it to be homœopathic to chorea and nervous jactitations."—*Hale*.

"I have used Scutellarin 1x in many cases of cardiac irritability, nervous palpitation, etc. It somewhat resembles *Lycopus*, but has not its depressing action, while it has greater power over the hyperæsthesia."—*Dr. E. M. Hale*. [Excellent in hysteria with excessive excitement.]

Aggravation.—In close atmosphere.

Amelioration.—Moving about in open air.

SECALE CORNUTUM.

Ergot of Rye.

Habitat: Europe, America, etc. Tincture of fresh Ergot gathered in moist, warm summer, just before harvest, Class III. Trituration.

Antidotes.—Camphor, Opium, Amyl nitrite, Ether, Alcohol, Tannin.

Through the cerebro-spinal system, Ergot has ten special centers of action :

- I. HEART. *Inhibitory Paralysis; Pulsations greatly Lessened.*
- II. CIRCULATION. *Tonic Arterial Contraction; Veins Dilated.*
- III. TEMPERATURE. *Greatly Lowered, Sometimes 5 Degrees.*
- IV. UTERUS. $\left\{ \begin{array}{l} \text{Abortifacient; Violent Tetanic Contractions from} \\ \text{Arterial Anæmia and Venous Hyperæmia.} \\ \text{Death of Fœtus from Uterine Tetanus} \end{array} \right.$
- V. STOMACH. *Violent (Centric) Emesis; Hæmatemesis.*
- VI. INTESTINES. (SMALL.) *Increased Peristal.; Wat'y Diarrhœa.*
- VII. SPHINCTER MUSCLES. *All Paralyzed.*
- VIII. CEREBRO-SP. S. *Formication; Muscular Cramp; Epilepsy.*
- IX. EYES. *Pupils Dilated; Amaurosis, from Arterial Anæmia.*
- X. SKIN. *Diaphoresis; Furuncles; Eczema; Gangr.; Purpura.*

Circulation.—The chief interest to the physician in regard to the physiological action of Ergot centers upon the heart and blood-vessels. "Although the heart is profoundly affected in acute poisoning by Ergot, yet death is probably not due to this cause; since Wright found, that, after death, even though the heart was quiet, it commenced to beat as soon as the congestion was relieved by an incision, and continued to pulsate for fifteen minutes.

"One of the earliest careful cardiac studies of Ergot is that of P. Eberty. He found that in the frog the injection of a gramme of Ergotine caused a diastolic arrest of the heart, and that the viscus was unable to respond at all to stimuli. It is inconceivable that this can be due to other than a direct action of the drug upon the cardiac muscle; yet Eberty seems to believe it is caused by an influence exerted through the pneumogastries; and it is said, that,

after division of these nerves, even very great quantities of Ergotine are powerless to produce cardiac arrest.

"In man, full doses of Ergot unquestionably diminish the frequency of the pulse, since the phenomenon has been independently noted by Paola, Gibbon, Arnal, Hardy, Beatty, Stille, and Prof. Bailly; but the method in which this reduction is brought about is uncertain. The amount of reduction varies from ten to thirty-five beats per minute; the largest doses rarely reduce the pulse below sixty. [In febrile affections, the influence of the medicine was more marked, and sometimes the pulse fell thirty-six beats in the course of five hours. Bonjean found that a drachm of Ergot lowered his pulse from seventy to sixty. In parturient females, Hardy observed that within fifteen to thirty minutes the medicine produced a marked diminution of the pulse, which sometimes continued for several days.] According to Ebert's experiments, therapeutic doses of the drug produce in mammals, as in man, slowing of the heart's beat. It was found that in frogs the pulsations of the heart were still affected after destruction of the medulla, but that, in mammals, after paralysis of the peripheral vagi by Atropia, Ergot was powerless to alter the cardiac rhythm. These experiments, if correct, appear to prove that Ergot acts as a stimulant to the peripheral cardiac nerves, and that the reduction of the number of beats is due to this, and is independent of the nerve centers. Boreischa has noticed that toxic doses quicken the heart's action, and that, under these circumstances, galvanization of the par vagum has little or no effect upon the heart. It would seem, therefore, as if the drug first stimulated and then paralyzed the peripheral pneumogastrics."—*Dr. H. C. Wood.*

Vascular System.—The chief effect of Ergot is upon the *arteries and veins*. "It is a fact that the arteries are contracted. These changes may be somewhat considerable, so that vessels of rather large dimensions appear as very narrow ones with thick walls. This contraction chiefly affects the small arteries; but even in the larger ones it is clearly recognizable. On the other hand, there is a dilatation of the veins. The condition necessarily attending these changes is a diminished quantity of blood in the contracted arterial system, and a corresponding increase in the contents of the veins. This fact may be directly observed in frogs and rabbits, and was observed by Wernich, not long ago, with the microscope in the web of the frog, and was drawn by Holmes, by means of the camera lucida, and micrometrically measured by Briesemann.

"Clinical experience of the action of Ergot in lowering the circulation of the blood entirely corresponds with this. This lowering action is an indisputable fact for the practical physician who has employed this drug, even though the direct experiments made on animals have been questioned from various quarters. The main question connected with this circumstance is how this vascular contraction of the arteries is brought about. It was formerly assumed that Ergot caused contraction of the arterial vessels by stimulating their muscular coat, so that they were in a state of active contraction. This contraction of the arteries was then further traced to an influence which Ergot was supposed to exercise upon the vaso-motor center. A true cramp of the arteries was, therefore, regarded as the effect of Ergotine, a cramp that, under some circumstances, might last long. A considerable shock has been given to this view of Ergotine's action, universally prevalent till quite lately, from the circumstance that the increase of blood-pressure to be postulated *a priori* from so strong a contraction of the arteries has not been found by any of the later investigators, except Eberty, in their experiments on blood-pressure with the kymographion. Thus, Holmes, Haudelin, Hermann, and Wernich found almost constantly a more or less considerable decrease of blood-pressure. The diminution of blood-pressure directly contradicts an active contraction of the arterial vascular system; again, as Wernich shows, such a contraction is disproved by the beneficial influence on arterial aneurisms, which Langenbeck, Hermanides, and others produced by Ergotine injections. Lastly, it is opposed by Willebrand's observations, mentioned above, with regard to the diminution of volume of the heart. The question which must next arise is: How, then, is arterial contraction induced? If it is not active, it must be passive. The heart must, in a given space of time, pump less blood into the periphery than in its natural condition, because less blood is conveyed to it by the systemic and pulmonary veins; there must be an unwonted accumulation of blood in the veins. Such an accumulation of blood in the veins is only possible by a diminution of the tone of the veins, as Wernich insists. This dilatation of the veins, this increased amount of blood in them, can be directly proved. According to Wernich's observations, it is the veins of the mesentery, of the uterus, of the bladder,—the abdominal veins generally,—which show most clearly this engorgement after the introduction of Ergotine.

"Wernich draws a parallel between the symptoms of Ergotine-poisoning in frogs and those which Golts has observed in his ex-

periments on pulsation with regard to the circulation. In both cases, there is a strongly marked arterial anæmia, and an equally striking venous hyperæmia; in both cases, there is a diminution of cardiac contraction leading to entire cessation of cardiac action; in both cases, Wernich sees in the dilatation of the veins the primary, in the contraction of the arteries and the action of the heart, the secondary, symptom. The arteries, therefore, collapse from want of sufficient quantity of blood, the action of the heart proceeds more slowly or ceases altogether from diminution or entire cessation of the supply of blood to it; so that the action of Ergotine appears to lead to an accumulation of blood in the veins. The cause of the decrease of the tone in the smooth muscles of the veins has not been experimentally established with sufficient accuracy. It should be mentioned that Zweifel, in the treatise above quoted, comes to the conclusion, from careful experiments, that not only Ergot and its preparations, but a whole series of substances, produced arterial contraction, and that all these substances have one property in common, that of producing considerable pain when subcutaneously injected. He therefore regards the action of Ergot on the vessels as by no means its chief action, but believes that to consist in its influence upon the central nervous system."—*Ziemssen*.

Temperature.—This is greatly reduced by Ergot, from its action upon the heart and vascular system. Cases are on record where the temperature has been reduced four degrees in the treatment of fibrous tumors by this drug.

Uterus.—Through the nerve centers of the brain and lumbar region of the spinal cord, Ergot has a powerful and fixed action upon the pregnant uterus. "For the accoucheur, the fact is established that Ergot may increase pangs already existing; although many maintain that it can not originate them. Yet it has been proved by various investigators, especially recently by Schlesinger and Wernich, that, even in the unimpregnated uterus of animals, movements take place under the influence of Ergotine. But these movements, according to our present experience, as they respond to the physiological experiments of the investigators above mentioned, may be regarded, not as primary effects of the poison, but as secondary, and dependent on the arterial anæmia produced by Ergotine, etc. Wernich's experiments appear to me here again to be valuable. According to them, in experiments on animals, as a rule, the change of the caliber of the vessels does not influence the discoloration and blanching of the uterus

till first movements of the uterus have been observed, of short duration and moderate intensity, but still so evident that there is no doubt of their existence. It is therefore sufficiently clear that it is not the arterial anæmia or venous hyperæmia alone which causes these movements. On the contrary, it might almost be assumed that the influence of Ergot upon the movements of the uterus proceeds solely from an influence of the poison upon the *nerve centers* of these movements in the lumbar region of the cord and its higher situated parts, as well as in the brain. But even in this case, some influence might be attributed to anæmia induced by the Ergot; only when we come to further reflect on the action of the poison on the spinal cord, the hypothesis of a direct action of the poison is much more simple, although the whole question appears as yet to be far from settled. The experiments of Schlesinger and Oser would go to prove, firstly, that the arterial anæmia is to be regarded as the stimulating cause of the movements of the uterus; and, secondly, that the uterine contractions are caused by excitement from the central organs. In this experiment, the exclusion of the flow of arterial blood to the brain, by ligaturing all the blood-vessels leading to the brain, produces in about half a minute general contraction of the uterus. The abortions produced by Ergot-poisoning are thus accounted for by its increasing uterine contractions."—*Ziemssen*.

Prof. H. C. Wood says: "Upon the uterus of parturient women, Ergot exerts a very pronounced and fixed influence, increasing the length and force of the pains, and, if it be given in sufficient dose, causing after a time violent tetanic cramp of the whole organ. The drug certainly acts in this respect upon the lower animals as it does upon man, since Youatt states, that, in a large experience, both with monogastric animals and ruminants, he has never known the drug to fail in its action on the uterus of the parturient female.

"The action of Ergot in producing contraction in the impregnated but not parturient womb is by no means so constant. Upon animals, Dr. Wright found it to fail in all of a number of trials, as did also Bonjean in a single experiment. On the other hand, Diez, Oslere, Percy and Laurent found it to cause abortion in guinea-pigs, sows, rabbits, cows, and cats; and M. Bodin has reported an epidemic of abortion occurring among cows feeding upon Ergotized grasses. The evidence of those who have used Ergot for the induction of premature labor in women tallies very closely with that which is brought forward in regard to the lower animals. To show that the fungus very often will act as an abor-

tifacient, it is only necessary to quote Prof. Ramsbotham, who states that he has made a 'great number of trials' and found that 'expulsive action soon followed its exhibition, with very few exceptions.' It can not be gainsaid, however, that very often the drug has failed; sometimes, no doubt, because of poor quality, or because given in insufficient quantity, yet sufficiently often to show that its abortifacient action is uncertain."

The Influence of Ergot upon the Child.—Many cases are on record where Ergot, given to the mother to facilitate delivery, has unquestionably affected the child. Statistics show that Ergot, administered in tedious and difficult, slow labors has proved very destructive to the life of the child. "Dr. Moore, of New York, says; 'It appears to be injurious to the child at all times; for, in every case in which I have seen it exhibited, the child has been stillborn; and, in the greater part of them, it was not possible to restore it to life;' and Dr. R. M. Huston maintained, that, even when given under all the favorable conditions admitted to be necessary, the medicine is still chargeable with the death of many children; and he refers to the experience of Church, Holcombe, Hall, and many others, for a confirmation of this statement. The above statement of the influence of Ergot upon the child, I believe, is over-estimated; but I also believe, that many a child owes its death to the tetanic contraction of the uterus caused by too early and too long-continued administration of Ergot before the uterus and vagina are prepared for the expulsion of the child. The constant and continued contractions of the uterus so compress the child's body that it stands to reason that it must act injuriously upon the fœtus; and the above facts should put us always on our guard, inhibiting its use in all cases excepting where it is thoroughly indicated."—*Stille*.

Indications for the Use of Ergot.—"Dr. Stearns has given us the true indications for its use. He says: '1. In lingering labors when the child is low, the parts relaxed, the pains absent or feeble, and there is danger of delay from hemorrhage or other alarming symptoms. 2. When the pains are suspended and convulsions set in. 3. In inevitable abortion. 4. When the placenta is retained by uterine inertia. 5. In post-partum hemorrhage under like circumstances. Subsequent experience has confirmed the soundness of these rules, and has not made any essential addition to them.' . . . Dr. Meigs says that he scarcely gives Ergot as an *expulsive* agent. He chiefly employs it at the moment of, or just before, the birth of the child, in order to secure a good contraction of the womb in women who are known to be subject

to hemorrhage. To administer it merely for the purpose of hastening natural labor and abridging the attendant's weariness of waiting, is wholly inexcusable, and argues a culpable ignorance of the powers of the drug. Several cases are reported where Ergot has occasioned rupture of the uterus, from the excessive spasmodic contractions. Rupture of the perinæum, laceration of the os uteri, hour-glass contractions, retention of the placenta, and puerperal convulsions have been attributed to the indiscriminate use of the drug."—*Stille*.

Digestive Organs.—The action of Ergot is mostly spent upon the stomach and small intestines.

"The most evident symptoms in the early stage of the action of Ergot-poisoning—retching, vomiting, diarrhœa, and salivary secretion—are consequences of the action of the poison on the sensory nerves of the mucous membrane of the alimentary canal; these are excited by the poison, and the excitement is communicated to the motor and secretory regions,—reflex action.

"The vomiting which sometimes occurs in the later course of the poisoning is, perhaps, traceable to an action of the poison on the central nervous system. In the same way the subsequent diarrhœa is dependent on the influence of the poison on the vessels and the distribution of blood. We have no accurate knowledge as to the origin of the flow of saliva. In all probability, it is to be regarded as a reflex salivation, as it follows upon eating acrid substances, and precedes vomiting. The vomiting, dependent on the same cause, is connected with the early stage of muscular weakness. The muscular exhaustion, continuing for a longer time, is, on its side, produced by the changes affected in the circulation by the poison. . . . Results of autopsies: Putrefaction sets in very rapidly. The heart is found bloodless and flaccid; the lungs in a condition of venous hyperæmia; venous injection of cerebral membranes very marked. Strongly injected patches are often found in the stomach and intestines, sometimes hemorrhagic and even gangrenous erosions are met with. Evidences of venous hyperæmia are found in the abdominal glands, liver, and spleen, which are somewhat swollen and dark colored."—*Ziemssen*.

"The fibers in the coats of the intestinal blood-vessels are certainly not the only non-striated muscles upon which Ergot acts; indeed, the probabilities are strong that the drug influences muscular fiber of this character wherever it exists in the body. There is considerable evidence to show that it causes increased intestinal peristalsis. In Dr. Wright's experiments, the intestines were

found in very active peristalsis at the post-mortem examination of the poisoned animal. Dr. Wernich noticed that very violent peristaltic movements followed the injection of Ergot, as was seen not only in the rabbits whose abdomens were opened, but in some cases even through the uninjured walls; and Haudelin has confirmed his observations."—*Dr. H. C. Wood.*

From the involuntary stools and urine, we are led to believe that the sphincter muscles of the anus and bladder are specifically affected by Ergot so as to completely paralyze them. Hypodermic injections have often caused such tonic contraction of the *sphincter vesicae* as to render micturition impossible. And the drug has often been of signal service in paralysis of the bladder, the result of over-distention. The same may be said of the sphincter ani, when prolapsed or paralyzed.

Cerebro-Spinal Nervous System (Spasmodic Ergotism).—

Ergot has a marked action upon the brain and spinal cord. They are at first stimulated for a short time, which is soon followed by paralysis. This paralysis has often extended to the centers of respiration and cardiac contraction; and in chronic poisoning, the filaments of the sensory nerves are powerfully influenced.

"When flour strongly impregnated with Ergot in the form of bread or other farinaceous food, has been eaten for several consecutive days in some considerable quantity, the first symptom of Ergot-poisoning makes its appearance in the form of a peculiar irritation of the cutaneous nerves, much like the sensation of an ant creeping over the skin. This formication continues during the whole course of the illness, and is the last symptom which disappears. It affects chiefly the fingers and toes, but may also extend to other organs, e. g., the hands and arms. In some cases, the formication increases to actual numbness, and even to complete anæsthesia of the parts affected. Simultaneously with this formication, symptoms set in in the stomach and intestinal canal similar to acute Ergot-poisoning. Vomiting and diarrhœa alternate with violent colicky pains. Curiously enough, as a rule, this is accompanied with intense hunger, to satisfy which they devour everything eatable that comes in their way.

"Another symptom usually present is a peculiar sensation of discomfort, anxiety, and weariness, giddiness and general uneasiness. The patient also complains of distressing pressure in the pit of the stomach, and the formication grows into very acute pain. Then we get involuntary twitchings in various groups of muscles, e. g., in the tongue and in the extremities. These

twitchings soon pass into continuous contractions, which specially affect the flexors, so that the arm, e. g., remains fixed in a bent position. This muscular cramp will last a variable time, half an hour or even a whole hour, or more; this cramp is also very painful. The retching and vomiting are persistent; but the action of the bowels is sluggish. When the contractions pass off, a state of utter exhaustion remains. But soon the painful convulsion returns and makes the patient moan and groan continuously. The contractions now appear simultaneously in various groups of muscles, the epigastrium is tightly distended, the facial muscles are distorted, the legs are flexed. At the same time, the hands frequently assume a beak-like form, the fingers being contracted toward the middle finger, and simultaneously flexed toward the ball of the thumb; the foot assumes a similar form. The pupils are usually contracted, sometimes distorted; the eyes are fixed. The skin is covered with cold perspiration, the urinary excretion is suppressed; but, at the same time, there is violent dysuria, dependent on spasm of the bladder. The pulse is weak and low. In severe cases, the patient loses the power of sight and speech,—of hearing and consciousness. Delirium sets in, the face is pale and sallow, the head, like the body, feels cold, and thus, with the continuance of the convulsions, and gradually advancing cardiac paralysis, death may supervene. This may occur as early as the third day after the beginning of the symptoms, especially when the contractions, as sometimes happens, attack the respiratory and spinal muscles, inducing opisthotonos. The loss of sight may be preceded by all possible visual disturbances, colored vision, double vision, etc. In many cases which do not terminate fatally, cataleptic and epileptic attacks occur, either with or without loss of consciousness.

"The symptoms which mark the course of spasmodic Ergotism all point to a disturbance of the central nervous system under the influence of Ergot. The motor as well as the sensory centers in the brain and spinal cord are first excited, and later on paralyzed, by the poison. There can be no question that the convulsions, the disturbances in the organs of the senses, in the sensorium, and in the cutaneous nerves, are of central origin. But the question arises whether this effect of the poison is a direct one, or indirectly caused by the changes in the capacity of the vessels. It is known that convulsions may arise from arterial, cerebral, and spinal anæmia, as well as from excessive hyperæmia, and more readily so from the former. The disturbances in the organs of sight and hearing are easily accounted for by the anæmia; and, indeed, a

series of cases have been recently published of acute amaurosis after acute hemorrhage. Now, the accumulation of blood in the venous net work which we have mentioned in acute Ergot-poisoning, is closely analogous to acute hemorrhage. But, although we are led to assign a considerable share in the production of the series of symptoms to constriction of the arteries, it is impossible to exclude a direct influence of the poison upon the nervous system. There is no doubt that some of the symptoms depend upon the drain of fluid, caused by the repeated vomiting and diarrhœa. But the general symptoms are chiefly the result of the direct action of the poison on the mucous membrane of the stomach and intestine. The vomiting in the later stages of the illness may be regarded as central; and the later diarrhœa is traceable to the altered condition of the blood found in the intestine."—*Ziemssen*.

Skin (Gangrenous Ergotism).—The poison of this drug has a special and most powerful action upon the skin. "Besides very abundant perspiration, pustules often break out, or even larger furunculi. The exanthemata sometimes resemble scabious eczema; they appear in the later stage of the malady; as, e. g., in Aschoff's case, fourteen days after the appearance of the first symptoms of poisoning. But other disturbances of nutrition in the peripheral organs are also reported, as e. g., whitlows on the fingers, occurring as late as the fourth and fifth week, and diseases of the finger-nails, which are encircled by a dark ring. Cardiac contractions are generally slow and feeble, the arteries are constricted and contain little blood. The respiration is very labored during the spasms, but tolerably regular in the free intervals. When death supervenes, it is usually not till after a fortnight or later; the convulsions may have ceased; yet loss of sight and hearing, with violent headache, stupor, and delirium, may set in, attended with diarrhœa; and thus the fatal stage may assume the form of typhus and general collapse. Death is generally ushered in by either convulsions or paralytic symptoms. The whole form of the illness, therefore, is very variable, and its course highly irregular. The illness may last four to eight weeks, and even longer.

"The symptoms which characterize gangrenous Ergotism as such often appear within from two to seven days, but are frequently delayed for two and three weeks. An erysipelatous redness shows itself on some spots in the periphery, most frequently on the toes and feet, but also on the fingers and hands, more rarely on the ears and the nose; soon after, the epidermis is raised like a blad-

der by serous exudation; the ichorous contents of this are soon discharged, and a gangrenous spot more or less large is left. Then dry gangrene develops very rapidly at the affected spot.

"The part affected is very painful while the redness is invading it; but later on it becomes quite insensible. The gangrenous spot may exhibit either the dry or moist form, according to whether the discharge was checked or encouraged; upon this, also, depends the greater or less intenseness of the odor of putrefaction. In some cases, the gangrene was limited to one or more toes, sometimes only to single phalanges; in other cases, however, the entire foot or hand was affected; not infrequently the gangrene extended to the trunk; it was possible for the patient to lose both feet or both arms. Indeed, a few cases are reported, in which all four extremities were lost. The gangrenous parts become separated from the healthy tissue by a well-defined line of demarkation, and the affected part may fall off itself, or must be removed by an operation. This process of demarkation is often attended with serious disturbances of the general condition of the patient; sometimes a modified form of continued fever is developed, followed by phthisical changes; in a few cases, from absorption of ichorous matter, pyæmia and septicæmia set in, and are, of course, fatal. When the gangrene was confined to parts of minor importance, the patients usually recovered; greater losses were naturally more frequently fatal. In some cases, obstinate diarrhœa brought on marasmus and death, even when the extent of the gangrene was not very considerable. We must mention, however, that in many cases the diseased process did not advance beyond the erysipelatous redness; marked cyanosis may be observed, and yet a separation may take place, and the circulation be restored. The duration of the entire illness varies, and may be protracted through several months. In favorable cases, the course is ended in a few weeks.

"This form of gangrene, like all other forms, depends on the fact that the part affected is deprived of its blood-supply, and its nutrition thereby arrested; consequently, it must pass into a state of decomposition. The only question which can be advanced here is, whether it is inflammation which leads to gangrene, or whether the process is of a non-inflammatory character, resembling that which occurs when all the vessels going to a limb are ligatured. When we consider that the initial so-called erysipelatous redness is simply dependent on the cyanosis, and that these spots are not, as in a case of inflammation, hot and swollen, but, on the contrary, they become very cold, and warmth can not be

restored in them, and that the affected limb is not at all swollen, the hypothesis that such a gangrene is of an inflammatory character must, *a priori*, be rejected. When we further reflect that there is no fever at the onset, the second hypothesis becomes still more probable. Exclusion of an extremity from its ordinary blood-supply is quite conceivable from our current views of the action of Ergot on the vessels and the distribution of blood.

"The contraction of the small vessels, especially of the arteries, by Ergot, particularly when the vis a tergo, i. e., the cardiac contraction, is in a remarkable degree simultaneously affected by this poison, may lead to a complete emptying of blood, not only in the separate smaller vessels, but also in the larger vascular trunks; and it is conceivable, that, by the failure of the blood-supply, the arteries themselves (e. g., in the intima) may become diseased, so that thrombi readily form in them, and so the whole process may be characterized as thrombotic."—*Ziemssen*.

Therapeutic Individuality.

General Indications.—"This remedy is often indicated in thin, scrawny women, and in those who are afflicted with melancholy, anguish, dread of death; with constant sensation of pressure and bearing-down sensation in the uterus."—*G*.

"The patient is of a passive character; thin, scrawny, cachectic appearance, and subject to passive hemorrhages."—*G*.

Women who have excessive and profuse discharge from all the secreting outlets; and are constantly cold; diseases that have a strong tendency to putrescence and gangrene.

"Desire to be uncovered, even in cholera, with cold perspiration; worse from warmth."—*F*. [Especially children.]

Intolerance of all covering, with cold skin.

Mind and Head.—"The disposition is exceedingly melancholy and depressed, with apprehension and dread of death; sometimes violent mania."—*D*.

"Frightful anxiety and fear of death; consciousness seems to continue till the last breath."—*Dr. Richter*. [Like Aconite.]

"I have used Ergotine very successfully in very severe congestive headaches; in persons of lax fiber; large, phlegmatic, lymphatic individuals, whose blood-vessels are doubtless relaxed and easily distended, almost to bursting, whenever the circulation is abnormally directed. Such headaches usually occur at the *climacteric* in women, and in old drunkards of both sexes. The pain

seems to rise up into the head from the back of the neck, the occiput first suffers, then it extends all over the head, with great agonizing distress; face pale; extremities cold and livid. The congestion is more internal-central than general or peripheral; sometimes the head is drawn back by *almost continuous contractions*."—*Dr. E. M. Hale*.

"Quiet delirium, or grows wild with great anxiety; has a constant desire to get out of bed."—*G.* [Puerperal fever.]

"Vertigo and stupefaction; with dull headache."—*D.*

Unsteady gait, with feeling of great lightness, mostly in the occiput.

"Pain and confusion mostly in the occiput."—*Hg.* [Epilepsy.]

"Twisting of the head to and fro (hydrocephalus)."—*Hg.*

Congestion of the scalp; hair falls out, at the climacteric.

"Pulsation in head; giddiness, so that she can not walk."—*Hg.*

Chronic congestion of scalp; hair becomes dry, gray, falls out.

Eyes.—From the contraction of the arterial capillaries, we have anæmia of the eye tissues, with amaurosis; obscuration of sight; double vision, or complete loss of sight; fiery sparks before the eyes (asthenopia).

Ergot-mydriasis I believe to be due to paralysis of the oculomotor nerve; making the eyes stare; double vision and squinting.

Eyes sunken, with pupils widely dilated. In cholera.

Paralysis of the upper lids; general marasmus.

"Eyes lie deep in the head, with staring look."—*Dr. Strabler*.

"After Ergot-poisoning of a large number, many cataracts occurred in young people, twenty-three of whom gradually became blind, associated with headache, vertigo, and roaring in the ears. Of the cataracts, two were hard, twelve soft, and nine mixed."—*Dr. Meyer*.

Ears.—"Roaring in the ears, with great difficulty of hearing."—*Dr. Dreyssig*. [Hard hearing after cholera.]

The confused and difficult hearing is probably, from anæmia caused by the arterial capillary contraction. This also accounts for the excessively acute hearing.

Nose.—Constant nosebleed; blood dark and thin.

"Nosebleed; blood dark, runs continuously, with great prostration; pulse thread-like; old people, or drunkards; nose stopped up, yet watery discharge runs from it."—*Hg.*

Obstinate nosebleed in purpura hæmorrhagica.

Face.—"Expression of the face most anxious; face pale, sunken, hippocratic."—*Dr. Richter*. [Choleraic diseases.]

Face pale and collapsed; pinched, contracted, and discolored.

"Spasmodic distortion of the mouth and lips; muscular twitchings usually commence in face, and then spread over body."—*Hg.*

Lips deathly pale, or bluish. Choleraic diseases.

Mouth.—Tongue clean, or coated white.

Salivation, with fetid breath.

White, moist, flabby tongue. Intestinal diseases.

"Speech difficult, slow, and weak, with a feeling on every motion as if there were some resistance to overcome."—*Dr. Marcard*.

Great dryness of the throat, and inability to swallow.

"Burning in throat, with violent thirst."—*Hg.* [Gastritis.]

Unquenchable thirst, all stages of fever; gastro-enteritis.

Excessive hunger; can not be satisfied; marasmus.

Excessive craving for acids.

Stomach.—"Unnatural appetite, even when dying from exhausting discharges from the bowels."—*Dr. Salerne*.

"Excessive nausea and debility, with very little vomiting of a dark brown coffee-ground fluid."—*Dr. Poyet*.

"Hæmatemesis, patient lies still; very weak; abdomen soft; no pain."—*Hg.*

Vomiting of food; bile; mucus; blood, and decomposed matter.

"Anxiety and pressure in pit of stomach; great sensitiveness to touch."—*Hg.*

Pain in pit of the stomach, with burning, and feeling of a weight in the stomach; painful constriction of the stomach.

Abdomen.—Coldness of the back and abdomen.

"Cholera, cramps; cold, clammy perspiration; coldness in the back, abdomen, and limbs; cold, dry, livid tongue; serous vomiting; suppression of urine; vertigo, and desire to sleep."—*Raue*.

"Cholera infantum, great debility, vomiting, and diarrhœa; much thirst; pale face; sunken eyes; dry heat; quick pulse; restlessness and sleeplessness."—*G.* [Excessive tympanitis.]

Abdomen excessively tympanitic. (Meteorismus.)

"Sensation of coldness in the abdomen and back."—*Dreyssig*.

"Strong pulsation in the umbilical region."—*Hg.*

"Inclination to colic, diarrhœa; bloatedness of abdomen."—*Hg.*

"Enlargement of the liver; ulceration and gangrene."—*Hg.*

"Paralysis of rectum; anus stood wide open."—*Dr. Hirschel*.

"Involuntary diarrhœa; putrid, fetid, and colliquative."—*G.*

"Painful diarrhœa, with great prostration."—*G.*

"Involuntary diarrhœa; putrid, watery, fetid, brown, and profuse, with great exhaustion; sinking of the eyes as in cholera; suppression of urine."—*D.* [With the above, the patient has great aversion to being covered or to heat.]

"Hemorrhage from the bowels."—*Dr. Hill.* [Typhoid fever.]

Urinary Organs.—"Paralysis of the bladder from over-distention; or due to cerebral or spinal lesion."—*Bartholow.*

Retention of urine, with unsuccessful urging; paralysis.

Old people; enuresis; urine watery, and passes continually

"Discharge of thick, black blood from bladder or kidneys."—*Hg.*

"Urine deposits phosphates looking like white cheese."—*Hg.*

"Diminution and suppression of urine."—*D.* [Cholera.]

Sexual Organs, Male.—"After lightness in the occiput, violent dragging in the spermatic cord, as if the testicle were being drawn up into the inguinal ring."—*Hg.* [In epilepsy.]

"After sexual excess, palpitation of the heart."—*Hg.*

For varicocele, "hypodermic injection of two grains of Ergotine; the needle so inserted that its point will rest among the dilated veins. Very severe pain and faintness follow, with a good deal of swelling; but the effects subside in a few hours. A single injection may cure; more than two are rarely necessary. Varicose veins on the limbs are cured the same way."—*Bartholow.*

"Deficient erections and loss of the capacity for coitus, due to enlargement of the dorsal vein of the penis. (Hypodermic injections with excellent results.)"—*Bartholow.*

Sexual Organs, Female.—"Thin, scrawny women, with profuse secretions from all outlets of the body. (Very characteristic.)

"Passive hemorrhages, in feeble, cachectic people, the corpuscles are dissolved, particularly when the weakness is not caused by previous loss of fluids."—*G.* [Best known remedy.]

"Passive hemorrhages; everything seems open and loose; no action; in thin, scrawny, cachectic women."—*G.* [Vessels flabby.]

"Copious flow of black, liquid blood; worse from the slightest motion, with convulsive movements in abortion."—*G.*

"Hemorrhage, with spasmodic contractions; every discharge of blood is preceded by a violent, painful contraction of the uterus, or by distressing bearing-down pains."—*G.* [Of great value.]

"Strong tendency to putrescence, discharge of black blood; a kind of sanies, with tingling in the limbs and great debility."—*G.*

"Menses too frequent, too profuse, last too long, with prolonged bearing-down pain; cutting colic; cold extremities; cold perspiration; great weakness; small pulse, sometimes violent spasms."—*G.*

"All her symptoms are worse just before the menses."—*G.*

"Suppression of the menses, in thin, scrawny married women, who suffer much at the menstrual crisis, with continual, long-lasting, forcing pain in the uterus."—*G.* [Are very flabby.]

Pregnancy. "Arrested development of the fœtus."—*Hg.*

"Threatened abortion; false pains; copious flowing."—*Hg.*

"She has a constant sensation of bearing-down in the abdomen; it seems to her too strong to be effectual."—*G.* [Parts dry.]

"Labor; the pains are much prolonged; as if pressing and forcing the uterus; in thin, scrawny, cachectic women."—*G.*

"Labor-pains are weak, suppressed, or distressing; in weak, cachectic women; 200th dilution."—*G.* [The fluid extract is better.]

"During labor; prolonged bearing-down and forcing pains in the uterus; pains irregular; too weak, everything seems loose and open, no action; fainting fits."—*Hg.* [Large doses fluid extract.]

"Strength of the uterus weakened by too early efforts."—*Hg.*

"Labor ceases, and puerperal convulsions, with opisthotonos, take place. In scrawny, ill-nourished, or flabby women.

"Retained placenta, with constant strong bearing-down in the abdomen, or with relaxed feeling of the parts."—*Hg.*

"Suppression of the lochia; uterine inflammation."—*Hg.*

"Lochia very offensive and thin; discharge scanty or profuse; may be painless, or accompanied by prolonged bearing-down pains, in thin, scrawny women."—*G.* [Or leucophlegmatic.]

Metritis, great prostration, extremities cold; frequent efforts to vomit; the blood discharged from the uterus is fluid, mingled with dark, badly smelling coagula, after labor.

Incessant metrorrhagia, with gangrene of the whole vaginal mucous membrane; dark color, and with putrid odor.

Very offensive, dark-colored, scanty or profuse lochia.

Leucorrhœa, jelly-like, alternating with metrorrhagia, in thin, scrawny women, with prolapsus uteri and excessive menses.

"Failure of lactation, in thin, cachectic, scrawny females, the breasts do not properly fill with milk, there is much stinging in them; she has been much exhausted with hemorrhages."—*G.*

In moles, polypi, and morbid growths in the uterus, with prolonged forcing pains, os uteri open, this is the remedy.

"The long-continued use of Ergotine has achieved remarkable results in *chronic metritis, uterine fibroids, polypi, and subinvolution of the uterus*. Since the memoir of Hildebrandt, numerous cases of successful treatment of *uterine fibroids* by hypodermic injection of Ergotine have been published. There seems to be no longer any doubt that Ergot has the power to arrest the growth of uterine fibroids, to cause them to atrophy, or to set up such a degree of uterine action as to compel their extrusion as polypi from the uterine cavity. In those instances where it fails to arrest the growth, notable improvement in the amount of hemorrhage and of the muco-purulent discharge, is evident. From two to six grains of Ergotine should be injected in the umbilical region. More or less pain is experienced, and an indurated spot, which may be more or less sore for a week or more, follows. Suppuration is the exception. The solution employed is, Ergotine, one drachm; Glycerine, one drachm; aqua destil., seven drachms. *Eight minims contain one grain of Ergotine.*"—*Bartholow*.

Squibbs' Extract of Ergot is soluble in cold water, is free from alcohol, and does not irritate. Sixty grains of this Extract is dissolved in two hundred and fifty minims of water, filtered, and made up to three hundred minims. Each minim represents one grain of the Ergotine. This will be found a good article for subcutaneous injections. Dr. Emmet says Ergot will cure when the tumor projects sufficiently to warrant the belief that it may become pedunculated by uterine contractions. When buried in the uterine walls or so situated that it can not be pedunculated by the uterine contractions, Ergot will do no good, but harm.

Respiratory Organs.—Constant sighing, anxious respiration.

"Difficult respiration, as if a weight were lying on the chest which obliges him to take forced respirations."—*Dr. Pardu*.

Weak, faint voice from choleraic diseases, with watery stools.

"Hard, hoarse cough, with but little expectoration."—*Hg*.

Hæmoptysis, with much spitting of dark-colored blood. (Of great value.)

Cramps in the chest, more in front; worse from coughing.

Pulse small, rapid, and frequently intermittent, or slow and suppressed.

Weak, depressed, slow pulse; or fluttering and rapid.

Often has palpitation of the heart at night.

Has acted very favorably in aneurisms and hypertrophy of the heart.

Back.—Violent pain in the small of the back.

"Tenderness in the lower cervical and upper dorsal region, with stiffness of the neck."—*Hg.* [Rheumatoid affections.]

Pressure upon the affected portion causes pain there and in the chest; exciting cough; aggravation from exertion.

"Tingling in back, extending to fingers and toes."—*Hg.*

Limbs.—"The limbs become cold, pale, and wrinkled, as if they had been a long time in water."—*Dr. Euridtor.* [Cholera.]

"After excessive lassitude, fever; the extremities become painful, cold and rigid, benumbed and almost insensible; great internal pain, greatly increased by heat; relieved by cold weather."—*Dr. Stephens.*

Numbness, insensibility, and coldness of the limbs.

Drawing, crawling, spasmodic pains and formication of limbs.

Anæsthesia of the limbs; paralysis of the limbs, with convulsive jerks and shocks in the paralyzed limb; formication.

"Burning in hands, with numbness and insensibility."—*Hg.*

"Numbness of the fingers and toes."—*Dr. Huss-Busch.*

This absolute insensibility of the ends of the fingers and toes, which is a marked characteristic of *Secale*, is followed by gangrene and death of the parts, which are also characteristic.

Cramps in the arms, legs, and toes; in choleraic diseases.

Gangrene of the arms and legs, with loss of all the limbs.

Skin.—"Very thin, scrawny children, with shriveled skin, especially when there are spasmodic twitchings, sudden cries and feverishness."—*G.* [Excessive marasmus.]

"Skin dry, brittle, emitting no blood when cut."—*Hempel.*

"Large ecchymosis; blood-blisters on the extremities, becoming gangrenous; black, suppurating blisters."—*Hempel.*

"The ulcer feels as though it had been burnt; discharges a putrid, bloody fluid, and is sometimes decidedly gangrenous and painless; in thin, scrawny, cachectic people."—*F.*

"The limbs become pale, cold, and shriveled, or cold and lead-colored, losing all sensibility."—*Raue.* [Leucophlegmatic people.]

"Anæsthesia of the limbs; paralysis, with convulsive jerks and shocks in the paralyzed limb."—*Hempel.*

"Excessive, offensive perspiration."—*G.*

"Sensation of something creeping under the skin."—*Nenning.*

"Petechiæ, ecchymosis, and gangrene of the skin."—*Hg.*

Senile gangrene, frost-bite, and dry ulcers upon the extremities, and back; slightest wound bleeds for weeks.

Fever.—Skin very cold, aggravated by warmth.

The temperature is greatly diminished; cold, clammy sweat.

"Cold skin, soon followed by long-lasting dry heat; great restlessness and violent thirst."—*Hah.* [Choleraic diseases.]

"Colliquative, clammy sweat over the whole body."—*Hg*

Variola pustules fill with bloody serum; very fetid.

The upper half of the body sweats profusely.

"Quiet delirium, or grows wild, with great anxiety, and a constant desire to get out of bed or to be uncovered."—*Hah.*

In epidemic cerebro-spinal meningitis, *Secale* has done well.

In aneurisms, especially of the peripheral portions of the main arteries, *Ergot* has made many wonderful cures.

It has acted so as to palliate hypertrophy of the heart from dilatation without valvular lesion.

Aggravation.—Especially by warmth; heat applied to any part of the body greatly aggravates, so much so that there is extreme aversion to covers; during the menses; in childbed, and at night.

Amelioration.—In cold air; from getting cold; from sweat; extending flexed parts, and during the day.

SENECIO AUREUS.

Life Root.

Habitat, North America. Tincture of the fresh blooming plant, Class III.

Through the cerebro-spinal system, *Senecio* has two special centers of action:

- I. MUCOUS MEMBRANES. (KIDNEYS AND LUNGS.) *Mucorrhœa.*
- II. CEREBRO-SP. S. *Greatly Nervous; Hysterical Excitement.*

Mucous Membranes.—*Senecio* spends the most of its action upon the urinary mucous membrane, producing congestion, inflammation, and bloody urine, with urging, tenesmus, or copious discharges of urine. It increases the secretions of the bowels, bringing on slimy, watery diarrhœa; causes congestion and inflammation of the *mucous membrane of the lungs*, with *copious*

catarrhal discharges, and, by its action on the mucous lining of the female generative organs, produces catarrhal leucorrhœa, with profuse menstruation, or almost complete suppression of menses.

Cerebro-Spinal Nervous System.—Here Senecio acts much like Valerian, producing great nervous excitement and a general hysterical condition.

Therapeutic Individuality.

Urinary Organs.—In inflammation of the kidneys and ureters, after the passage of gravel, Senecio has been of signal service in many cases.

Urine scanty and bloody; hæmaturia; renal dropsy.

Tenesmus of the bladder; smarting in the urethra, in dropsy.

Increased urinary secretion; followed by acute inflammation.

Sexual Organs, Female.—It has been of much service in profuse leucorrhœa and amenorrhœa, with nervous irritability.

Abdomen and Stool.—Catarrh of the bowels, rumbling colic and watery stools.

Lungs.—Catarrh of the lungs; loose cough and copious mucous expectoration.

In General.—Much lassitude and great nervousness in female diseases.

Aggravation.—In the afternoon, and open air.

Amelioration.—Morning, and bending up (the colic).

SENEGA.

Snake Root.

Habitat, North America. Tincture of the dried root, Class IV.

Through the cerebro-spinal nervous system, Senega has four special centers of action :

- I. MUCOUS MEMBRANES. (LUNGS.) *Catarrhal Inflammation.*
- II. DIGESTIVE ORGANS. *Vomiting; Colic; Watery Diarrhœa.*
- III. EYES. *Rheumatoid Conjunctivitis.*
- IV. FIBRO-SEROUS TISSUES. *Dropsical Effusions.*

Mucous Membranes.—Senega selects especially the mucous lining of the respiratory organs, producing catarrhal inflammation, with copious discharge of mucus. In some cases, the secretion is not abundant, and it is attended with a dry, hard racking cough. In lung affections, Senega has made a good record.

Digestive Organs.—Here there is much hyperæmia of the mucous membrane, with great burning distress, and violent vomiting; severe colic, and watery diarrhœa. In some cases, it acts upon the urinary organs as a diuretic.

Eyes.—Here Senega produces conjunctivitis, with much aching pain and sense of tension in the balls.

Fibrous Tissues.—Upon the pleura and joints, Senega has a marked action, as shown from chronic exudations of the pleura and joints; has cured hydrothorax, ascites, and anasarca.

Therapeutic Individuality.

Respiratory Organs and Chest.—Senega's main sphere of usefulness is in diseases of the respiratory mucous membrane.

Profuse secretion of mucus in the lungs of old people, with loose, rattling cough, is the characteristic indication.

- * Great rattling of mucus in the chest, with flying pains in chest.
- Irritating, shaking dry cough, in chronic bronchitis in the aged.

Dry cough, with aphonia; aggravated by cold air, and particularly by walking, relieved by warm air and rest.

"Soreness of the walls of the chest on moving the arms, particularly the left, with rattling of mucus in the chest."—*J. B. Bell.*

"In sub-acute or chronic exudations of the pleura, and in catarrhal pleuro-pneumonia, where Bryonia has failed."—*Hale.*

Adynamic pneumonia; low fever and much prostration.

"Violent aching pain in chest when waking at night."—*Seidel.*

"Orgasm of blood and oppression of the chest."—*Dr. Seidel.*

Dr. Meyhoffer commends it when the phlegm is very adhesive.

Great, irritating cough and secretion of mucus; with much pain about the chest.

Dyspnoea, especially during rest.

"Boring pain about the heart."—*Dr. J. B. Bell.*

"It has been administered with great success, in hydrothorax, ascites, and anasarca,—after albuminuria."—*Hale.*

Digestive Organs.—"Mouth dry; offensive smell; tongue white or yellow; throat painful, inflamed."—*Dr. H. C. Jessen.*

Much thirst, with loss of appetite.

Increased secretion of saliva; offensive breath.

Nausea, vomiting of mucus; cramps and burning distress in the stomach; griping in bowels; mushy or copious watery stools.

Watery diarrhoea, with griping pains in the bowels; nausea and vomiting.

Urinary Organs.—"Frequent urination, with greenish tinge, depositing a cloudy sediment."—*Hah.*

"Urine at first mixed with mucous filaments; afterward it becomes thick and cloudy."—*Jahr.*

Head and Eyes.—"Dullness of the head, with pressure and weakness of the eyes."—*Seidel.*

"When looking at an object intently, the eyes tremble and run."—*Seidel.*

Weakness of the eyes, with burning and lachrymation.

Weakness of sight, with flickering before the eyes.

Drawing and pressure in the eyeballs, with loss of sight.

"Iritis and specks on the cornea."—*Hughes.*

Mental and physical debility, with dropsical effusions.

Aggravation.—Morning and evening, and motion.

Amelioration.—In open air, after perspiration.

SEPIA.

Cuttle Fish Juice.

Habitat: Mediterranean Sea, etc. Tincture of dried black liquid, Class IV. Trituration.

Antidotes.—Acids, Ant. tart., Rhus, Nitr. spir. dulc., Acon., Calc., Sulph.

Through the great vegetative nervous system, Sepia has seven special centers of action :

- I. VENOUS SYSTEM. *Venous Congestion of the Portal System.*
- II. OVARIES. *Venous Congestion ; Atony ; Scanty Menstruation.*
- III. UTERUS. *Venous Conges. ; Leucorrhœa ; Ulcerat. ; Prolapsus.*
- IV. GASTRO-INTEST. C. *Portal Congest. ; Torpidity ; Constipat.*
- V. LIVER. *Congestion ; Torpidity ; Acid Secretions.*
- VI. KIDNEYS. *Scanty Urine ; Increased Uric Acid ; Lithiasis.*
- VII. SKIN. *Cachectic, Yellow, Earthy, Waxy. Chloasma ; Eczema.*

Venous System.—The most prominent action of Sepia is to cause *venous congestion*, first in the portal system and then throughout the whole organism. "This remedy operates especially on the portal system, by retarding the circulation, and causing an over-loading of the vascular system with venous blood,—a *plethora venosa*, as it is called, which gives rise to most of the various symptoms. The pathological process is also marked by a state of depression. . . . All further morbid conditions are but secondary. All disorders of the portal system must first affect the neighboring organ, the liver. It is characterized by torpidity and depression, often ending in perfect exhaustion of the vital powers."—*Dr. Meyer.*

Ovario-Uterine Organs.—Upon the sexual organs of women, Sepia has a special and profound action ; and no remedy has proved more valuable in sub-acute and chronic diseases of women during ovario-uterine activity. "The venous congestion which characterizes all these Sepia affections of the uterus may be primary ; but it is very often, I think, secondary to abdominal plethora. The uterine veins, indeed, open into the vena cava ; and are consequently not directly affected by portal obstruction. *But the*

womb may be indirectly influenced by such cause through the rectum. When in this way constipation, prolapsus ani, and hæmorrhoidal fullness are induced in women, and then the uterine health becomes impaired, Sepia is indicated for the whole group of symptoms, and will do much toward removing them. . . . Its pathogenetic influence over these organs was strongly displayed in the American provings. All save two of the women who took part in them, reported leucorrhœa as occasioned by the drug; and in one of them the speculum revealed prolapsus, retroversion, and ulceration of the os. Its curative powers move in the same plane. No remedy is more frequently beneficial in leucorrhœa, especially, I think, when a symptom of uterine congestion of venous rather than arterial type. . . . Dr. Mercy Jackson, when suffering from prolapsus, seemed to feel the medicine raising the womb into position, which it did without other aid. She has since found it equally beneficial in the permanent cure of anteversion and retroversion—in recent cases, not even manipulation being necessary.”
—*Hughes*.

Ovaries.—Sepia produces venous congestion, and an atonic, torpid condition of the ovaries, as shown by the scanty and too early menses, sterility, and amenorrhœa. Chloasma, so strongly produced by Sepia, probably has its cause in a great measure in the ovaries or uterus.

Gastro-Intestinal Canal.—Tongue is large, pale, and flabby; coated brown or yellow; bitter, coppery, putrid taste; eructations; hiccough; nausea and sometimes vomiting of mucus and bile; no thirst; *great sinking and faint* feeling at the pit of the stomach; abdomen distended with flatus; cutting colic; stools scanty and *constipated* from lack of normal stimulus to the excretion. This torpid condition of the bowels is in a great measure due to portal congestion.

Liver.—Sepia acts on the liver to produce sour, foul secretions; hepatic pains; weight, fullness, tightness; worse when lying on the left side; as if a load rested on the epigastrium, with a faint, gone, sinking sensation; long-continued pain under the right shoulder. In functional derangement of the liver, either sub-acute or chronic, Sepia will be found of great value, especially if complicated with uterine or renal troubles.

Kidneys.—All provers of Sepia have noted the marked diminution of the quantity of urine, with increase of uric acid and the urates, and increased specific gravity, producing a full picture of

lithiasis. The urine is voided with great difficulty, as if the organs were partially paralyzed; and oftentimes there is tenesmus. In diseases where there is deposited an excessive amount of the urates, Sepia has proved of signal service.

Skin.—Sepia acts upon the skin through the trophic nerves, on the lymphatics and veins, producing a cachectic, yellow, earthy, waxy skin; pruritus, with vesicles upon a red base on all parts of the body; *eczema*; ichthyosis; herpes in the joints, etc. The yellow, earthy complexion of Sepia is something remarkable; the yellowish-brown saddle across the bridge of the nose, and the chloasma on various parts of the skin, are characteristic of the drug. These "*liver spots*" are seated in the rete mucosum, and are probably due to assimilative debility of the trophic nerves. We see it so often associated with hysteria and ovario-uterine diseases, that this may have something to do with the cause of chloasma. Genito-urinary diseases and *eczema* go hand in hand, and are often seen in the same patient; for example, Glycosuria and *eczema* of the vulva often occur together. "The skin affections of Sepia are among its most important symptoms. We find itching of the skin, and itching vesicles and papules on the face, hands, and feet; also vesiculo-pustular eruption in the hollow of the joints. After the Sepia *eczema*, there is abundant desquamation."—*Dunham*.

Therapeutic Individuality.

In General.—Sepia is especially adapted to sub-acute and chronic diseases in women with dark hair, and tight, rigid fiber.

"Sepia is the washerwoman's remedy; and its complaints are aggravated after laundry work."—*D*.

Urinary Organs.—It affects the female genito-urinary organs, particularly during the period of ovario-uterine activity. The patient is very sensitive to cold air, with chills from the least exposure.

"Fetid urine, depositing a clay-colored sediment, which adheres to the chamber with great tenacity."—*G*.

"The urine is so putrid that it can not be suffered to remain in the room."—*G*.

"The urine deposits a reddish, clay-colored sediment, which adheres to the bottom and sides of the vessels as if it had been burnt on like burnt clay."—*G*. [Greatly aggravated at night.]

"The bed is wet almost as soon as the child goes to sleep; always during the first sleep."—*G*. [Very characteristic.]

Intense burning and cutting pain when urinating; urine thick, slimy, and very offensive, depositing a pasty sediment; lithiasis.

"Pressure on the bladder and frequent micturition, with tension in the lower abdomen."—*Hah.* [In uterine diseases.]

"Considerable desire to urinate, with painful bearing-down in the pelvis."—*Goullon.* [Urine is thick, red, and turbid.]

"The evacuation of urine is preceded by pressure and tenesmus; it is frequent, painful, and often ineffectual, until after long waiting and effort; involuntary micturition at night; has a pink deposit, stains everything it touches red."—*D.*

"Gonorrhœa in the female (or male) after the acute symptoms have subsided."—*Hughes.* [Use the 15th or 30th attenuation.]

I have cured many cases of chronic gonorrhœa with the 30th of Sepia. No remedy that I have used equals it, when the urine is loaded with the urates, staining everything red, and often excoriating and very fetid, associated with prostatitis.

Sexual Organs, Male.—"Increased sexual desire, with weakness of the genitals; sweating of the genitals, and prurigo."—*Hg.*

Coition produces great weakness; and the urethra burns afterward. Nightly emissions, with sexual dreams; great despondency, and sensitive to cold, damp air, it chills him through and through.

Sexual Organs, Female.—The chief use of Sepia, overshadowing all others, is found in female diseases; associated with chloasma of the skin.

"Experience has shown its value in cases of ulceration and congestion of the os and cervix uteri. Its use supersedes all local applications."—*D.* [Sub-acute and chronic cases.]

"Burning, shooting, stitching pains in the neck of the uterus, with sensation as if everything would come out of the vagina; she has to cross her limbs to prevent it."—*G.*

Sensation as if the patient must cross the legs, sit close, to keep something from coming out of vagina, with an empty, all-gone feeling in epigastrium, is the most characteristic of Sepia.

Induration of the cervix uteri; with stitching pains in it, extending upward, and a feeling as if the uterus would fall out.

"A painful stiffness in the uterine region; pressing in the uterus oppressing breathing."—*G.* [Chronic ulceration.]

"Prolapsus of the uterus and vagina."—*G.* [Chronic cases.]

"Pressure in the uterus, causing oppression of breathing; the pressure downward as if everything would fall out, accompanied with pain in the abdomen; she must cross her limbs in order to

prevent the protrusion of the vagina, yet nothing protruded, but there was an increase of leucorrhœa."—*Hah.*

"Leucorrhœa, with stitches in the neck of the uterus, and much itching in the vagina; she has to cross her legs to prevent everything coming out of the vagina."—*G.*

"Profuse mucous leucorrhœa, having a fetid smell, or like pus, with drawing pains in the abdomen."—*G.* [Endometritis.]

"Leucorrhœa of a sanguineous, mucous, yellowish, watery character; worse after urinating."—*G.* [Chronic endometritis.]

"One of the most frequently indicated remedies for painful coition; contractive pain in the vagina; almost continual stitches in the vagina."—*G.* [From inflammation.]

"A putrid, excoriating discharge from the uterus, with shooting, stitching, and burning in the neck of the uterus."—*G.*

"Troublesome and severe itching of the vulva, with pimples all around; painless vesicles in the outer part of the vulva."—*G.*

"Severe itching of the vulva, the labia are swollen, with humid eruption."—*G.* [Often associated with diabetes.]

"Leucorrhœa like milk, only during the day, with burning pain and excoriation between the thighs."—*Hah.*

Before the menses, acrid leucorrhœa; especially in young women.

"Before the menses, violent colic; shuddering all over the body the whole day; acrid leucorrhœa; sensation as if the vulva were enlarged, with great soreness."—*G.*

"The menses come too early, but are scanty; preceded by violent aching in the abdomen; causing faintness, chilliness, and shuddering."—*D.* [Young women.]

"Between the menses, a peculiar offensive perspiration, sudor hystericus, with a pungent, offensive perspiration in the axillæ and on the soles of the feet."—*G.* [And chloasma.]

"During the menses, tearing in the tibia; toothache; obscuration of sight, and violent pressure in the forehead, with discharge of plugs from the nose."—*G.* [Chronic catarrh.]

"Menorrhagia, with a painful sensation of emptiness at the pit of the stomach; urine very fetid, and a sediment like burnt clay upon the bottom of the vessel; yellow saddle across the nose, and spots on the face."—*G.*

"Chronic metrorrhagia, when it is excited from the least cause; she has icy-cold paroxysms; icy-cold feet, and flushes of heat; great sense of emptiness at the pit of the stomach; constipation; with great sense of weight at the anus, not relieved by stool."—*G.*

Sudden hot flushes at the climacteric, with momentary sweat, weakness, and a great tendency to faint. (Very characteristic.)

"Amenorrhœa in feeble constitutions, with delicate, thin skin; menstruation always irregular; sweats profusely when walking; particularly sensitive to cold air; repeated shuddering through the day during the menstrual nîsus; constipation and sense of weight in the anus; painful sensation of emptiness at the pit of the stomach; swollen and puffy appearance of the whole body; face puffy, pale or yellow."—*Marcy and Hunt*. [Portal congestion.]

"Discharge of green-red fluid from vagina in pregnancy."—*G*.

"Soreness of the abdomen of pregnant women; feel the motions of the child too sensitively."—*G*. [In sensitive, hysterical women.]

Offensive, excoriating lochia, very long-lasting.

"Nipples crack across the crown; bleed, and are sore."—*Hg*.

Head.—Sepia headache is apt to come in *terrific shocks*.

Hemicrania from an affection of the reproductive system; countenance pale; *face dirty yellow*; especially in young females in whom the cerebral nerves have excited the sympathetic, producing a long train of hysterical symptoms; the pain is stinging, aching, throbbing, tearing, piercing, and of long duration.

Dull, stupid headache, with great mental depression; anæmia.

"Shooting from forehead to vertex, and both sides of the face."

—*Dr. H. V. Miller*.

"Pulsating headache in the cerebellum, beginning in the morning, lasting till noon, or sometimes till evening; aggravated from the least motion, when turning the eyes; lying on back; better during rest and in the dark."—*Hg*.

"Great indifference to her own family; very sad and fearful about her health; often weeps."—*G*. [In ovario-uterine affections.]

"Involuntary fits of laughter or weeping."—*G*. [Hysteria.]

"The disposition peculiar to Sepia is a depressed, anxious, and fearful state of mind, with a sense of helplessness, and yet great susceptibility to excitement, and still more to terror; frequent attacks of weeping, and despair of life."—*D*.

Cross and irritable, with indigestion; from mental exertion.

"Is despairing, sometimes suicidal, and greatly averse to work or exercise."—*Dr. Talcott*. [Chlorotic young girls.]

"During first sleep she often feels as if she had swallowed something, which wakens her up in a fright, with a sensation as though it had lodged in her throat; this sensation remains after waking."—*H. N. Martin*. [Globus hystericus.]

"Anxiety, with fear; flushes of heat over the face; about real or imaginary evils."—*Hg.* [At the climacteric.]

"Eruption on vertex and back part of head, dry, offensive, stinging, itching, and tingling, with cracks; feeling sore when scratching; falling-off of the hair."—*Hg.* [Chronic eczema.]

"Sensitiveness of the roots of the hair, worse in the evening, to contact, to cold north winds; burning after scratching."—*Hg.*

"Dandruff comes in circles, like ringworm."—*Marcy and Hunt.*

"Great falling-out of the hair."—*Hah.* [At the climacteric.]

Ears.—"Loud sounds and humming in the ears."—*Hah.*

"Very sensitive to noise, especially music."—*Hah.*

"Humming in ears, followed by loss of hearing."—*Hg.* [Pus.]

"Discharge of thin matter from ear."—*Hg.* [Chronic otorrhœa.]

Eyes.—"In inflammatory affections of an asthenic character, conjunctiva of a dull red color, some photophobia and swelling of the lids, worse in the mornings, we frequently find Sepia very useful."—*A. and N.* [Especially if in young females.]

Dr. Liebold has used it with very favorable results in keratitis parenchymatosa, complicated with uterine troubles.

The aggravation *morning* and *evening*, and the amelioration in the middle of the day, are almost always present; torpid bowels.

"At Dr. Woodyatt's suggestion, we have employed Sepia in several cases of cataract, especially in women, with manifest advantage, arresting the progress of the disease, and often improving the vision very decidedly."—*A. and N.*

"Obscuration of vision dependent upon hepatic derangement, may often call for this drug."—*A. and N.* [Obstinate constipation.]

"Occasionally cures trachoma, with or without pannus, especially in tea-drinking females. There is often excessive irritability of the eye to both use and light, particularly worse night and morning; lids close in spite of him, and sparks may be flashing before the eyes."—*A. and N.* [Fair, thin-skinned people.]

"In paralysis of upper eyelid,—ptosis,—Sepia often cures."—*D.*

"Yellowness of the face, particularly across the bridge of the nose, like a saddle."—*G.* [Greatest characteristic of Sepia.]

Mouth.—Slimy, putrid taste; eructations the same.

Gums swell and bleed easily; the teeth become loose; drawing, digging, tearing toothache; from uterine diseases and portal congestion.

"The tongue sore as if scalded; or flabby and indentated, that of atonic dyspepsia. This large, pale, flabby tongue is characteristic."—*D.*

"Appetite good, but suddenly satisfied; loathing of fat; sudden craving, sudden satiety."—*D.* [Venous plethora.]

"Offensive smell from the mouth; profuse flow of saliva."—*D.*

"Bitter, putrid, insipid taste."—*Hah.* [Sour, slimy, foul.]

"Dryness of the throat the whole day."—*Hah.*

Stomach.—"The thought of food sickens her, with sense of great weight in the anus."—*G.* [Torpid, slow digestion.]

"Eructations tasting like spoiled eggs or manure, with aversion to meat."—*G.*

"Paroxysms of something twisting about in the stomach, and rising toward the throat; her tongue becomes stiff; speechless and rigid like a statue."—*G.* [Globus in hysterical subjects.]

"No appetite; desire for vinegar; no thirst."—*Hah.* [Portal congestion.]

"Nausea mornings only, passing off after eating."—*Hah.*

"Empty, gone feeling in the stomach, relieved by eating."—*Hah.*

Sensation of emptiness at the pit of the stomach, especially in uterine diseases, is one of the greatest symptoms of Sepia.

"Morning sickness; she can not take her accustomed ride in the morning on account of nausea and painful feeling of hunger in the stomach."—*G.* [From portal congestion.]

"In the morning nausea, as if all the viscera were turning inside out; inclination to vomit in the morning, when rinsing her mouth out."—*G.* [During pregnancy.]

"Vomiting of bile and food in the morning, or milky fluid during pregnancy"—*Hg.* [With great constipation.]

"Sensitiveness of the pit of the stomach to touch; pain in the stomach as from a stone, after eating."—*Hg.*

Stitches; cramps; and beating in the epigastrium.

A characteristic symptom is a *peculiar faint sinking at the pit of the stomach*, not painful to pressure.

Liver.—Functional diseases of the liver; sub-acute and chronic hepatitis, with stitches and fullness in the hepatic region; relieved by lying on the affected side.

"Sensation in both hypochondria as if the ribs were broken, and the sharp points were sticking into the flesh."—*H. N. Martin.*

"Hepatic neuralgia, with great depression of spirits; weight, fullness, and tightness in the region of the liver."—*D.*

Abdomen.—"Pot-belliedness in women, with yellow saddle across the nose, very irritable, and faint from the least exertion."—*Raue.* [Leucophlegmatic constitutions.]

"Sensation of emptiness in the abdomen; or load in the abdomen during motion."—*Hah.* [Portal congestion.]

"Sensation of bearing-down in the pelvic region, with dragging pains from the sacrum; or feeling of bearing-down of all the pelvic organs."—*Hah.* [Prolapsus uteri.]

"Flatulence from lack of bile; abdomen very much distended after the least bit of food."—*D.* [Constipation.]

Flatulent colic, especially in uterine diseases; constipation.

Many brown spots on the abdomen; chloasma.

Stool.—Sense of weight or ball in the anus, not relieved by stool (*Nux vomica*), is a very marked characteristic.

"Constipation, stools hard, difficult, and knotty, with sense of weight in the anus, not relieved at stool."—*G.*

"The stool is very difficult, covered with mucus, and sometimes impossible to pass, even with the most terrible straining, with much burning at the anus and rectum, and sense of great weight at the anus."—*G.* [15th.]

Piles; the portal circulation is retarded, causing an overload of the portal veins; plethora venosa; protrusion of the piles and anus; continual straining pain in the rectum; heat, burning and swelling of the anus; discharge of black venous blood; constipation. Use the 15th potency.

Oozing of moisture from the anus; prolapsus and debility.

Jelly-like or green mucous, sour stools in children.

Respiratory Organs.—Dry coryza; nostrils sore, swollen, ulcerated, and scabby; discharging large green plugs.

"Blowing large green plugs from the nose."—*Hg.*

"Loss of smell, or fetid smell."—*Hg.* [Chronic nasal catarrh.]

Bleeding of the nose during the menses, in young girls.

"Hoarseness, roughness and dryness in the larynx."—*Hg.*

Sepia is useful in both dry and loose cough; but the dry cough predominates; especially in a female or child.

"The provings of *Sepia* show dry and moist cough, even copious expectoration of white, salty mucus or pus. I find it effectual in that dry cough which is so characteristic of tuberculosis. We find titillation in the trachea, sometimes a covered, deep voice without timbre, sensation of dryness in the throat or chest; dry, croaking, deep cough, somewhat relieved by lying down; after great labor some mucus is expectorated."—*Hirschel.*

"Spasmodic dry cough, coming in rapid concussions, till the breath is exhausted; seems to come from the stomach; worse mornings and evenings."—*Dr. C. Wesselhoeft.* [Pertussis.]

Dry cough, with eruptions upon the skin; in females.

"Loose cough in the morning, with efforts to vomit."—*G.*

"Expectoration profuse, purulent, offensive, green, tasting salty only in the morning."—*Hg.* [Chronic bronchitis.]

Congestion of blood to the lungs, palpitation of the heart, and great anxiety.

"Loss of breath from slight motion; awakens in the morning with dyspnoea, and covered with sweat, lasting for hours."—*Hah.*

Back.—"Great aching between the shoulders and under the left scapula, extending into left lung; worse on expiration."—*Hah.*

"Pain constantly between shoulders and down back."—*Hah.*

"Much pain and weakness in the small of the back."—*Hah.*

Much pain and weakness of the back from uterine diseases.

"In the sacro-lumbar region, Sepia produces pain, which generally is relieved by sitting or lying, worse when walking. It is a pressing, dragging pain over the sacrum, and at the same time over the hips, and a burning pressure in the spine, extending across the dorsal region and under the scapula, like that produced by sewing."—*D.*

Extremities.—"In the extremities, stitches and sticking, drawing pains, with lassitude, coldness of the feet, but sometimes only of the knees; sweat of the feet."—*D.*

Aching of the limbs, great lassitude, and weariness and prostration in the joints; cramps of the calves at night.

"Sudden faintness, with profuse sweats and undisturbed consciousness, without being able to speak."—*G.*

"The lower limbs pain as if beaten; she desires to sit down, and when sitting she desires to stand up."—*Hah.*

"Great faintness, with heat, then coldness; great exhaustion in the morning during the menses."—*Hah.*

Great weakness; the least exertion fatigues; female diseases.

Swelling of the limbs and feet; feet swollen and feel as if asleep; feet burn much at night; at the climacteric.

Stiffness and cracking of the joints, with arthritic pains.

Skin.—"Various forms of skin diseases, and in particular those of a vesicular character, attended by much itching and followed by desquamation."—*D.*

Constitutional diseases of the ovario-uterine organs, or hepatic diseases, with brown discolorations of the forehead and cheeks and of the skin across the bridge of the nose, like a saddle. Dark-haired people.

"Eruptions very moist, almost constantly discharging pus-like matter; the child often jerks its head to and fro."—*G.*

"The least injury tends to ulcerate, in thin, delicate skins."—*Marcy and Hunt.*

"Specific in herpes circinatus."—*F.* [And chloasma.]

"Sensation of coldness between the shoulders, followed by general coldness, and convulsive twitching of the right side, and difficulty of breathing."—*G.*

Very sensitive to cold air; profuse night sweats.

Aggravation.—Morning and evening; cold air; wet weather; motion; sexual excesses; fat, greasy food, and during pregnancy.

Amelioration.—From warmth; middle of the day, and warm open air.

SILICEA.

Silicic Acid.

Habitat: All parts of the world. Trituration of the pure Silicea from Quartz crystal.

Antidotes.—Camphor, Hepar sulphur, Fluoric acid, Mercury.

Through the great vegetative nervous system, Silicea has five special centers of action:

- I. BONES. (FIBROUS TISSUE.) *Inflammation; Ulceration; Caries.*
- II. LYMPHATICS. *Congestion; Hypertrophy; Suppuration.*
- III. SKIN. *Pustular Inflammation; Cold Extremities; Fetid Sweat.*
- IV. MUCOUS MEMBRANES. *Catarrhal Inflammation; Ulceration.*
- V. CEREBRO-SPINAL S. *Loss of Nutrition; Neurasthenia; Spasms.*

Bones and Fibrous Tissue.—The physiological action of this *grand* remedy has not, as yet, been fully revealed; but, through the organic nervous system, Silicea has a most profound action upon the bones and fibrous tissue, producing suppuration and complete destruction of the bones, periosteum, and fibrous tissue in any part of the body, and caries of the shafts or epiphyses of any of the bones, with excessive nightly bone-pains. If in the joints, the bones are greatly swollen, with complete destruction of the ligaments. The general condition of the system produced by

this drug is that of perverted nutrition, resembling rachitis and scrofula, its action being slow, deep, and long lasting.

"Silicea influences the nutrition, rather than the functional activity of the tissues which come within its sphere of action; it is hence suited to *organic changes*, rather than to *functional disorders*. Its deep and slow action, moreover, makes it appropriate to chronic rather than acute diseases. Silicea has an extraordinary control over the *suppurative process*, seeming to mature abscesses when desired, and certainly reducing excessive suppuration to moderate limits. Its main sphere is in the diseases of the vegetative tissues and organs. I regard it as a remedy even more important than Calcareo for *rachitis* in children. In rickets, you will find two symptoms which are very characteristic of Silicea; viz., the perspiration of the head only, and the tenderness of the general surface. The tendency which obtains, moreover, to defective formation of bone and increased growth of cartilage in this disease, calls loudly for Silicea. Dr. Von Grauvogl points out that the only chemical difference between cartilage and bone is that Flint is present in the latter, but not in the former; and he gives a good case of enchondroma of the fingers, in which, acting upon this suggestion, he gave Silicea 3d with most satisfactory results. I can speak no less confidently of the power of this drug, when, as in rachitis, the enchondromatous tendency is general. I am accustomed to prescribe it in the earliest manifestations of the diathesis, which are generally unhealthy evacuations, sweats of the head, and tenderness of the surface, and with the best results. In scrofula, we have so eminent a therapist as Dr. Jousset proclaiming it the chief of remedies.

"It is chiefly when scrofula manifests itself in the bones and joints, that Silicea proves its remedy. There is abundant testimony to its value in periostitis, when non-syphilitic in origin; and it is no less valuable when the bone itself is affected, as shown by caries or necrosis. In the scrofulous joints,—the white swellings of the old authors,—where all commended it, it is probably most useful when the mischief has begun in the bones rather than in the synovial membrane or the cartilages. If, in any of these cases, matter is already discharging, do not neglect the local use of the remedy."—*Hughes*.

To use Silicea locally, make a strong decoction of hay. This hay tea contains Silicea in solution, and is of great value where this drug is indicated, when used locally. In hypertrophy of the bones, and in panaritium, Silicea can not be surpassed by any known remedy, especially where destruction of the bone and much

hypertrophy of the periosteum are marked features, with excessive nocturnal pains; and, where suppuration is fairly established, this drug will often check it at once, and also the tendency to recurrence.

Skin and Lymphatic Glandular System.—Like most of the vegetative medicines, Silicea acts powerfully upon the skin and lymphatics; the lymphatics become greatly enlarged, and tend to suppuration. "Pustular eruptions appear on the skin, abrasions readily take on suppurative action, and ulcers already existing increase in size and activity, and become the seat of stitching, boring pains. . . . Silicea has taken high rank as a remedy for cases involving profuse suppuration, causing abscesses to come speedily to maturity, and moderating the secretion of pus. In this regard, and as a remedy for simple ulcer, it has a brilliant clinical record. It seems to be equally applicable whether the suppurative process be set up in the cellular tissue, in a gland, or in a joint. In fistula lachrymalis, Silicea has often cured. It has gained a high reputation for the arrest and cure of whitlow, as well as for the affection of the matrix of the nail popularly called 'ingrowing toe-nail,' and to cure which the toe-nail is so often unnecessarily torn out. When Silicea fails in these cases, Graphites often succeeds."—*Dunham*.

"Icy coldness of the feet, ephidrosis, offensive sweat of the feet, affections of the chest and stomach after suppression of sweat of the feet,—all call for Silicea. Jousset says: 'It corresponds to pustulous eruptions on the head and extremities, and to suppuration of the lymphatic glands.'"—*Goullon*. [It has cured enlargement of the cervical glands as large as a hen's egg.]

Mucous Membranes.—"The mucous membranes of the large intestine, nares, pharynx, Eustachian tube, middle ear, bronchial tubes, and genital organs, are affected; their secretions being increased, and so modified, in respect of at least the respiratory tract, as to resemble pus."—*Dr. C. Dunham*.

Cerebro-Spinal System.—Silicea attacks the nutrition of the nervous centers, producing all the symptoms of neurasthenia, which is most beautifully shown by the beloved and sainted Dunham. He says: "Upon the nervous system, Silicea exerts a peculiar action. With evidence of exhaustion furnished by sensation of weakness, paralysis, etc., there is an exalted condition of susceptibility to nervous stimuli; the special senses are morbidly keen, the brain can not bear even moderate concussion, nor the

spine concussion or pressure, and the whole surface is unnaturally tender and sensitive; cold aggravates, and warmth relieves. There is then erethism conjoined with exhaustion. Nor is this all. This erethism, which is not evanescent, but endures for some time, is of such a nature, that, while it lasts, spasm is easily induced,—indeed, spasm often occurs without any evident provocation of muscular exertion and fatigue. Thus, for example, the sensation of weakness and the cramp in the feet at night and when walking; the sensation of weakness and spasm of the thumb and hand when writing; the sensation of paralysis in the rectum, and the spasm of the sphincter ani when making an effort to pass fæces, a spasm which characterizes the peculiar form of constipation observed under Silicea, and so often cured by it. Clinical experience has taught us that general spasms occur on slight provocation in case of this Silicea erethism.

"As an instance of this condition of the nervous system, we may cite the headache of Silicea. It comes on after much exertion, which has exhausted or worried the patient. Its seat is in the supra-orbital region, generally the right or left eye itself, and the pain extends along the base of the brain to the occiput, and down the nape; noise, motion, light, and concussion are intolerable. In persons whose nutrition is at fault, aching and sharp pains in the nape of the neck frequently occur on the occasion of any nervous strain or exhaustion, and when they exist are aggravated by exertion or excitement."

"The primary effects of Silicea manifest themselves in the cerebro-spinal system and the *vegetation of bones*. As a curative remedy, it is especially useful against paralysis in the most extended sense; hence, in chronic weakness of the higher nerve apparatus, generally; in suppressed capacity of feeling and emotion, *suppressed secretions*, especially peripheric."—*Dr. Goullon*.

Therapeutic Individuality.

Ruling Characteristics.—Sanguine lymphatic temperaments, and children with large bellies, weak ankles, much perspiration about the head, disposition to cover the head up to keep it warm.

Adapted to chronic scrofulous, suppurative diseases, especially in rachitic children, where the nutrition of an organ is assailed rather than the functions.

"V. Grauvogl mentions Silicea as a nutrition remedy among the series of substances against the *hydrogenoid* constitution. It certainly has very special bearings upon the organs of the vegeta-

tive system. Moreover, the fact that nutrition is poor, not, however, in consequence of poor food, but deficient assimilation (such persons are usually constipated), argues in favor of the importance of Silicea as an anti-scrofulosum. Constitution feeble; skin thin, delicate; face pale, and aggravation of the whole morbid condition when the moon is waxing."—*Goullon*.

"Induration and suppuration of the lymphatic glandular system in any part of the body. It has an extraordinary control over the suppurative process, seeming to mature abscesses when desired, and certainly reducing excessive suppuration to moderate limits."—*Hughes*.

"Diseases brought on by exposing the back to any slight draft of air; want of vital warmth, even when taking exercise."—*Hg*.

In chronic inflammation and caries of the joints, no remedy in the *Materia Medica* can equal Silicea, especially in the case of children with copious perspiration of the head, and great tenderness of the surface of the body.

Head.—"Vertigo is a very prominent symptom, when rising from the recumbent position, or from stooping, sitting, walking, or looking up. It seems to come from the dorsal region up through the nape of the neck into the head. The vertigo is so severe that he fears he shall fall; aggravated by motion, looking upward, and is accompanied by nausea."—*D*. [In neurasthenia and epilepsy.]

"Confusion in the head; mental exertion is very difficult; confusion in speaking; it is difficult to seize the right expression; a brief conversation causes confusion of the head and general lassitude; memory is enfeebled; dullness in the head without pain, as if it were too full of blood."—*D*.

"Attacks of vertigo seem to rise painfully from the back, through the nape of the neck to the head, so that she does not know where she is; is constantly inclined to fall forward."—*Hah*.

"Headache rising from the nape of the neck to vertex."—*Hah*.

"The headache of Silicea is so characteristic and well defined, and is so frequently met with, that it is one of the remedies most frequently employed by me for headache. The pain involves the occiput, nape of the neck, vertex, and the eyes, or generally the right eye. It is a sticking, tearing, pressing pain, generally beginning in the neck and shoulders, and going upward to the occiput and vertex, and extending through the head to the right eye; greatly aggravated by motion, noise, or light, the senses of sight and hearing being unnaturally acute. The patient

prefers to lie down in a dark, quiet room, is greatly relieved by warm applications to the head. Often accompanied by nausea and vomiting; passes off during sleep."—*D.*

She is occupied with pins, counts them, hunts for them, and is always worse during the increase of the moon.

"Dreams about corpses and dead persons generally."—*Jahr.*

Large, open fontanelles; in children, there is excessive perspiration about the head, wetting the pillow far around; and the child must cover the head up to keep it warm.

"The head is wet from sweating, particularly at night; likes wrapping up."—*Hg.* [In young scrofulous children.]

"The head is sore to the touch externally."—*Hah.*

Itching, sore, painful eruption on scalp, relieved by wrapping.

"Lumps rise on the head, hair falls out, scalp sensitive to touch, even to hat; tearing pains."—*Hg.* [Neurasthenia.]

"Cephalæmatoma neonatorum."—*Hg.*

"Coldness from nape of neck to vertex; head feels heavy."—*Hg.*

Ears.—"Silicea corresponds to a catarrhal affection of the ear, both external and middle, and of the Eustachian tube, producing deafness. There is also exalted sense of hearing (sympathetic), with headache."—*D.*

Otitis, both external and internal, with suppuration.

"Otorrhœa; foul, watery, curdy discharges, with caries."—*Hg.*

Chronic caries of mastoid process; slow, painful suppuration.

"Otalgia, with stitches from within out."—*Hg.*

Difficult hearing; stoppage of the ears, which open at times with loud report.

Much roaring and loud noises in the ears, with deafness.

Eyes.—Most of the eye symptoms are sympathetic.

"Smarting of the eyes; inflammation and lachrymation; redness of the eyes; painful as if too dry and full of sand in the morning."—*Hah.*

"Long-lasting photophobia; daylight dazzles the eyes; letters run together, appear pale."—*Hg.* [Neurasthenia.]

Ulceration of the cornea; pustular keratitis; opacity of the cornea; corneal fistula, with tearing, shooting pains. (Many cases have been cured.)

"Cataract after suppressed foot-sweat, or ringworm."—*Hg.*

"Boils around the eye and lids, and cystic tumors of the lids, frequently call for Silicea."—*Dr. Sterns.* [Especially if sub-acute or chronic.]

"In diseases of the lachrymal apparatus, it is a remedy of prime importance. It is especially adapted to inflammation of the lachrymal sac, with swelling, pain, tenderness, and lachrymation; suppuration seems inevitable. Many cases have been cured."—*A. and N.*

Dr. Woodyatt has used with great advantage Silicea in iridochoroiditis and other forms of inflammation of the uveal tract.

Ciliary neuralgia has been often cured with Silicea.

Nose.—The mucous membrane is congested, swollen, dry, and covered with crusts; chronic coryza, and loss of smell.

"Nose stuffed up, or alternately dry and fluent; obstructed mornings, fluent during the day."—*Hg.* [Especially in young children.]

"Much acrid water runs from the nose, without coryza, making the nose sore and bloody internally."—*Hah.* [Catarrhal inflammation.]

Ulceration of the nasal bones, from scrofulosis and syphilis.

Mouth.—Ulceration of the corners of the mouth, with vesicular eruption on the lips; submaxillary glands swollen, painful.

Gums swollen, sensitive, and ulcerated; teeth carious; ache much, always greatly aggravated by cold air and water.

Offensive odor from the mouth; from caries of the teeth.

"Teeth become loose, gums painful to slight pressure."—*Hah.*

"Sensation as if a hair were lying on forepart of tongue."—*Hah.*

"Mouth constantly dry."—*Hah.* [Atony of mucous membrane.]

Bitter, foul, bloody, or sour taste.

"Acidity of the mouth always after eating."—*Hah.*

"Sore throat, painful when swallowing, with enlarged and painful submaxillary glands; swollen cervical glands."—*Hah.*

"Scrofulous children during dentition keep grasping at their gums."—*G.*

"Water tastes badly, vomits on drinking."—*Hg.* [Indigestion.]

"Hungry, but can not get down food."—*G.* [Chronic dyspepsia.]

"Ravenous hunger before supper, with complete loss of appetite, and trembling in all the limbs, followed by chilliness and coldness over the whole body, and heat in the chest."—*Hah.*

"Acid eructations, with burning in the throat after a meal."—*Goullon.*

"After meals, load as of a stone in stomach."—*Dr. W. E. Payne.*

Thirsty; patient drinks much; atony of mucous membranes.

"Across the stomach and hypochondria griping and pinching pain in paroxysms for weeks. Drawing and pinching pain extending to hip-joints, or to the spinal column."—*D.*

Continued tearing, pressing, stitching pain in both hypochondria; from indigestion and much flatulence.

Abdomen.—"Abdomen hard, tense; greatly distended with flatulence, with rumbling and gurgling of gas."—*Hah.*

Colic, especially in lower abdomen, with constipation; relieved by hot applications. Inguinal glands swollen.

"Always great costiveness immediately before and during the catamenia."—*Hg.* [Semi-paralysis of the rectum and anus.]

"Particularly indicated where there are spinal affections, and constipation of difficult stools, as if the rectum had not power to expel them, the stools recede after having been partly expelled."—*G.* [Very characteristic.]

"Constipation with desire for stool; sensation as though feces remained in the rectum, which has not power to expel them; when, after much violent effort of the abdominal muscles, feces have been nearly expelled, they suddenly recede into the rectum. This has often been verified in practice."—*D.*

"Burning in the anus after dry, hard stool."—*Hah.*

"Frequent desire for stool; but discharge of only mucus, with chilliness."—*Hah.*

Mushy stools that are horribly offensive, and very debilitating.

Intensely painful hæmorrhoids; protrude after stool, become incarcerated and suppurate; often accompanied with fistula.

Urinary Organs.—Urines copiously, or it is scanty with red, sandy deposits of uric acid; organs very weak.

"Frequent desire, with discharge by drops, and burning in the urethra; must get up almost every night to urinate."—*D.*

"Suppuration of the kidneys."—*Hg.* [Urine loaded with pus and mucus.]

Wetting the bed at night in children with worms.

Sexual Organs, Male.—Lascivious thoughts, with nocturnal emissions, followed by great exhaustion; prostatitis.

"After coition, right side of the head seems paralyzed."—*Hg.*

"Thick, fetid pus from the urethra; gonorrhœa."—*Hg.*

"Discharge of prostatic fluid while straining at stool."—*Hah.*

Hydrocele in children has been cured with Silicea.

Sexual Organs, Female.—Paroxysms of icy coldness over the whole body, at the appearance of the menses, and icy cold feet during the menses; with very fetid foot-sweat.

"Constipation before and during the menses, of hard lumps, which remain long in the rectum, as if it had no power to expel them."—*G.* [With corrosive watery leucorrhœa.]

"Increased menses, paroxysms of icy coldness over the whole body."—*G.* [Especially of the extremities.]

Too frequent and too profuse menstruation; the blood has a strong odor.

Menses very irregular every two or three months. (*Pulsatilla*.)

"Discharge of white water from the uterus instead of the menses."—*G.*

"Pure blood is caused to flow from the uterus every time the babe nurses."—*G.* [From atony of the uterus.]

Acrid, profuse leucorrhœa, with itching of the vulva.

"Aversion to mother's milk; vomits after nursing."—*Hg.*

"Nipples ulcerate easily. Fistulous ulcers of the mammæ; the substance of the mammæ seems to be discharged in the pus; one lobe after another seems to ulcerate and discharge into one common ulcer; often with great pain; or there may be several orifices, one for each lobe."—*G.* [Of great value.]

"Hard lumps in mammæ; nipples drawn in like a funnel; scirrhus."—*Hg.*

Air-Passages.—Hoarseness; roughness and dryness in throat, with dry, irritating cough, and a feeling of a hair on the tongue.

No remedy controls the suppurative process equal to *Silicea*. In organic diseases of the air-passages, where suppuration has taken place, with a suffocative racking, loose cough; copious expectoration of thick, yellow, greenish pus; accompanied with hectic fever; profuse night sweats, and great debility.

"Cough, deep, exhausting; first dry, then loose; provoked by tickling in the throat; especially by a sensation as if a hair lay from tip of the tongue to trachea, compelling to cough, hack, and scrape; tickling in larynx at night, excited by cold drinks, by every act of speaking; by lying down at night."—*D.*

Purulent expectoration of thick, yellow mucus; of greenish-yellow, offensive matter that sinks in water, chronic bronchitis and consumption, with debilitating night sweats.

Dropsy of the chest, or empyema; motion produces severe palpitation of the heart; from anæmia and lack of nutrition.

"Pressing pain, stitches; general sensation of weakness in the chest; can hardly speak is so weak."—*D.* [*Phthisis*.]

Deep, sighing respiration; better after eating; neurasthenia.

Neck and Back.—Cervical glands swollen, indurated; back very stiff after sitting; ulceration of the lymphatics.

"Stiffness of the nape of the neck, with headache."—*Hah.*

"Weakness in back, and a paralyzed feeling in lower extremities, could scarcely walk."—*Hah.* [From lack of nutrition.]

"Constant aching in the center of the spine; spinal irritation; paralytic symptoms, cold feet and constipation."—*Hg.*

Spinal curvature; painful to touch and motion; rachitis.

"Coccyx stings very painful, after long carriage ride."—*Hah.*

Limbs, Upper.—Offensive sweat in the axillæ; glands swollen.

Arms are heavy, and the muscles feel sore; neurasthenia.

"Sense of numbness in hands and prickling in arms."—*Hah.*

"Falling asleep of the hands at night; sensation as if the tips of the fingers were suppurating."—*Hah.* [Paralysis.]

"Bone felons; deep-seated pains, burning and stinging, worse from warm bed; ulceration about the nails; hangnails."—*Hg.*

"Finger-nails rough, yellow, very dry; fly to pieces when cut."—*Hah.*

Caries of the fore-arm, wrist, or fingers, of long duration.

Limbs, Lower.—Great weakness of the lower extremities.

"Suppuration and caries of the hip-joint; has cured many cases, even where there has been so much destruction that the femoral head has completely escaped from the acetabulum. In from three months to one year, it has effectually cured this disease, when used from the 3d to the 30th."—*Hg.* [Use the 15th.]

"Caries of the bones, with fistulous openings; discharge of thin pus and bony fragments."—*Franklin.*

Caries of the femur and tibia; especially of the joints.

Chronic inflammation of the knee-joint, with great swelling and partial ankylosis, in scrofulous children. (Of great value.)

For cold legs and feet, with excessively fetid foot-sweat, no remedy can equal Silicea, when used in the 15th potency.

"Offensive foot-sweat, with rawness between the toes."—*Hg.*

Bad effects often follow suppression of excessive foot-sweat; and they are generally removed by Silicea, when persevered with.

"In-growing toe-nail, offensive discharge."—*Hg.*

"Itching of the soles, driving to despair."—*Hg.*

"Intolerably bad, carrion-like odor of the feet."—*Hah.*

Fever.—Very chilly all day, especially at every movement.

"Icy-cold shivering frequently creeps over the body; limbs and feet especially cold."—*Hah.* [In weak, anæmic people.]

"Febrile heat all night; violent thirst and catching respiration."—*Hah.*

In profuse perspiration every night, from chronic suppuration with great prostration, the high attenuations act like magic.

Copious perspiration of the head, running down the neck, especially in children, wetting the pillow far around.

"Frequent flushes of heat, especially on face and head."—*Hah.*

The fever of Silicea is not of a definite form; suppuration.

Skin.—"Small wounds in the skin heal with difficulty, and easily suppurate."—*Hartlaub.*

"Spongy, readily bleeding ulcers, with torpid, callous edges; fistulous ulcers, secreting a thin, ichorous, fetid, yellow fluid."—*Franklin.*

"Ailments following vaccination, abscesses etc., even convulsions."—*Hg.* [In broken-down, anæmic subjects.]

"Scrofulous cutaneous eruptions, if they occupy more the hairy parts and the tip of the nose."—*Dr. Noack.*

"Suppurative processes; massive and repeated doses are indicated, if we have to do with scrofulous glandular swellings with suppuration. But, where there is actually suppuration, or even a tendency thereto, only high dilutions (30th) help."—*Dr. Noack.* [Chronic suppurations.]

"The skin is sensitive and irritable; and the whole body is painful as if beaten."—*D.* [Especially in children.]

Great tendency to boils, in any part of the body; mild and malignant carbuncles and suppurations; ulcers with stinging pains.

"Variola-like pustules on the forehead, occiput, sternum, and spine, extremely painful, and at last suppurate."—*Hah.*

Profuse night sweats, from suppuration, or in phthisis, are arrested at once by the highest dilutions. Dr. Holcombe has cured night sweats with the 6000th. We have no better remedy for copious, debilitating sweats; and, for the bad effects of suppression of fetid foot-sweat, no remedy can equal Silicea.

Aggravation.—From cold air or water; during motion; at night, and morning; during the new moon; during menstruation; and from uncovering, especially the head.

Amelioration.—From warmth, especially from wrapping the head up; in warm air, and middle of the day.

SPIGELIA.

Pink Root.

Habitat: South America, West Indies, etc. Tincture of the dried plant, Class IV.

Antidotes.—Camph., Puls., Cocc., Aur.

Through the cerebro-spinal nervous system, Spigelia has four special centers of action:

- I. DIGESTIVE ORGANS. *Vermicide; Mild Cathartic.*
- II. CEREBRO-SPINAL SYSTEM. *Neuralgia; Vertigo; Convulsions.*
- III. EYES. *Mydriasis; Rheumatic Ophthalmia; Neuralgia.*
- IV. HEART. *Rheumatism; Excessive Palpitation.*

Digestive Organs.—Spigelia acts here, in large doses, as a mild cathartic; but its most useful action is as a vermicide. It appears to narcotize the round worm; and then a brisk cathartic is required to carry it off. It has gained in the old school the highest place of all drugs for the destruction of lumbrici. They make an infusion of Spigelia, half-ounce, and Senna (as a cathartic), half-ounce.

Cerebro-Spinal System.—This is the most useful sphere for the use of Spigelia. It has a special affinity for the cerebro-spinal system, affecting more particularly the sentient nerves of the head, chest, and abdomen. The narcotic effects are, vertigo, dimness of vision, dilated pupils, spasmodic movements of the eyelids and facial muscles, and sometimes general convulsions. "The irritation of the nervous centers here displayed is, in the provings, shown especially in the sensory portion. Pain, usually of a shooting character, is stirred up in many parts of the body, but especially in the head, face, and chest; and in all very predominantly on the left side."—*Hughes.*

Eyes.—The mydriatic effect of this drug is well marked. The dilatation of the pupil is from paralysis of the third nerve. "Pain in and over the eyes, redness and injection of the whites, sparks before the sight, distortion and irregular movements of the balls; the severe pain accompanying which indicates the sclerotica as

the tissue chiefly affected. . . . When rheumatic ophthalmia means scleritis, Spigelia will act most satisfactorily. But you must not suppose that it is only in true rheumatic affections of the eyes and heart that Spigelia is beneficial. It is much praised in the primary, neuralgic stage of the 'arthritic ophthalmia' which is probably acute glaucoma. Dr. Angell commends it in several inflammatory conditions of the eyes in scrofulous children, where, with photophobia, there is severe ciliary neuralgia."—*Hughes*.

Heart and Arteries.—The heart symptoms are those of great pressure on the chest; violent palpitation, and cutting pains in the heart and down the left arm. The action of the heart and arteries is accelerated, producing cutaneous transpiration. In rheumatic carditis, endocarditis and angina pectoris, Spigelia has done fine service.

Therapeutic Individuality.

Head.—In neuralgia, where the pain centers on the eye, above or below, from cold, in damp, rainy weather, this remedy is the first to be tried. Hyperæsthesia of the filaments of the fifth pair of nerves is one of the most prominent symptoms of Spigelia.

"When headaches take the form of supra-orbital neuralgia, especially on the left side; when the pain recurs at regular intervals, tends to spread to the face or neck and to involve the eyes; is aggravated by the least concussion or motion, but especially by stooping; associated with pale face, restlessness, and palpitation. It is no less effectual when the pain is seated in the infra-orbital and maxillary branches of the nerve. Baehr gives it the first place for prosopalgia."—*Hughes*.

"Fine, burrowing, tearing pain in the brain, especially violent in the left parietal bone, on motion, on walking, especially violent on making a false step."—*Dr. Hermann*. [Rheumatic.]

"Burning pain in the right side of the forehead, extending to the eye, so that he could not turn it without pain."—*Dr. Meyer*.

"A pressive pain in the right side of the head, involving the right eye, in the morning in bed, but still more after rising; the pain was deeply seated, unaffected by pressure, very acute on motion; on sudden turning the head, the brain seemed to be loose; every jar, step, even straining at stool, aggravated the pain, or produced it when not already present."—*Dr. Sadin*.

Scalp very sore and sensitive to the touch; from neuralgia.

"Does not dare to shake the head, it hurts into the brain and he becomes dizzy."—*Hah*. [Hyperæsthesia of the fifth nerve.]

Eyes.—In rheumatic and arthritic ophthalmia; eyes feel too large, and hurt greatly on motion; neuralgia very severe.

"Intolerable pressive pain in the eyeballs; still more painful on turning the eyes; obliged to turn the whole head."—*Meyer*.

Rheumatic scleritis; pains are sharp and tearing; with pressure in the eyeballs; feathers appear to be on the lashes and sparks of fire before the eyes; neurasthenia.

"Its action is exerted on all the tissues, but especially upon the muscular and fibrous tissues and upon the functions of special sense."—*D*. [And is useful in rheumatoid diseases.]

"The occiput is the seat of many pains, which extend into the nape, causing stiffness of the neck and, at the same time, restlessness. In the forehead, and especially in the frontal protuberance, we find pulsating stitches; pressure from within outward; boring and burning pain; the latter is probably superficial, and indicates an affection of the supra-orbital nerve."—*D*.

Heart.—Rheumatic pericarditis, with violent palpitation of the heart, and anxiety; palpitation so violent that the walls of the chest are raised.

"Waving palpitation; not synchronous with the pulse; purring feeling over the heart; trembling of the carotids."—*Raue*.

"Dyspnoea; can lie only on the right side, with trunk raised; the least motion produces great suffocation, with anxiety and palpitation of the heart."—*G*.

"In the morning as soon as he sat down after rising from bed, the heart began to beat violently, with great oppression, and cutting pains in lower abdomen, as from incarcerated flatulence."—*Gross*.

"Unusually violent palpitation of the heart, so that he could hear the pulsation, and the beats could be seen externally through the clothes."—*Dr. Hermann*. [Very characteristic.]

Digestive Organs.—"Toothache caused by the customary smoke in the evening; of a throbbing, tearing nature, aggravated by cold water, disappearing on lying down."—*Hah*.

"Tearing in lower jaw, extending to ear and about it."—*Hah*.

"Fine stitches in tongue,—is full of cracks."—*Dr. Guttman*.

Much spitting of frothy saliva, or slimy mucus; rheumatic dyspepsia. Nausea every morning before breakfast.

"Dull stitches in pit of stomach and oppression of chest, worse on inspiration."—*Dr. Gross*. [With rheumatism of heart.]

"Griping in abdomen as though all the intestines would be constricted, caused great anxiety, difficult respiration."—*Hartmann*.

"Painful pressure in the lower abdomen as if it would burst, in the evening before stool; relieved by stool."—*Dr. Guttman*.

Thin, mushy stool.

Much itching of the anus; ascarides and lumbricoides.

In large doses, it is specific for lumbricoides.

Limbs.—Tearing pains in all the limbs, with great weakness of the body; tearing in the joints; rheumatism.

Very sensitive to cold air and to touch; the slightest jar or knock causes intense pain; acute inflammatory rheumatism.

Chilliness predominates, and mostly in the morning.

Flushes of heat; night sweats; especially if at the climacteric.

Aggravation.—From motion, noise, touch, turning the eyes; from morning till midnight, and from cold.

Amelioration.—During rest; after midnight, and warmth.

SPONGIA.

Spongia Marina Tosta.

Habitat: Mediterranean Sea, etc. Tincture of the roasted Sponge, Class IV.

Antidotes.—Camph., Puls., Cocc.

Through the great vegetative nervous system, *Spongia* has four special centers of action:

- I. GLANDS. (THYROID, TESTES, LYMPHATICS.) *Congest.; Hypert'y.*
- II. MUCOUS MEMBRANES. *Secretions Arrested; Dry, Hoarse Cough.*
- III. HEART. *Lack of Nutrition; Valvular Deposits.*
- IV. BLOOD. *Fibrine Increased; Anæmia.*

Glandular System.—*Spongia* produces enlargement and induration of the glands, especially affecting the thyroid and testicles. On the lymphatics, *Spongia* has a marked effect, as shown by its beneficial influence upon strumous swellings. This will not surprise us if we consider that it contains Iodine, Sulphur, Phosphorus, Kali hyd., Kali brom., Carbo veg. "Hahnemann observed from *Spongia*, aching swelling of the testes, and a similar condition of the spermatic cord. Dr. Hering gives several cases of

chronic orchitis and epididymitis, in which the drug proved highly efficacious."—*Hughes*.

The physiological effects of Iodine upon goiter are so similar to those of Spongia that they can be studied together. Spongia has caused pain, tenderness, and swelling of existing goiters; and Hahnemann's provers report that "the region of the thyroid gland is as if hardened." This knowledge and the many cures made of goiter with Spongia, give us great confidence in the action of this drug on this gland.

Mucous Membrane.—Spongia produces inflammation of the mucous membrane of the larynx and trachea, with great hoarseness, aphonia, and dry, barking cough, and obstruction of respiration, as if a plug were there. "There can be no question as to the eminent value of Spongia in simple inflammations of the larynx, from the slightest catarrh to the severest laryngitis, with all their manifestations of hoarseness, aphonia, and barking cough. It is in the dry form or stage of these affections that Spongia finds its place; and it rapidly promotes resolution. I have seen it so prompt in removing laryngeal symptoms in a phthisical patient, that I believe it to be of great value in phthisis."—*Hughes*.

Heart.—It probably attacks the nutrition of the heart, through the lymphatics. "Dr. P. P. Wells believes it the most valuable medicine we have for heart disease, where there are fibrinous deposits upon the valves. He states that he has repeatedly found the bellows-murmur disappear under its use. Sudden waking at night with a sense of suffocation is the symptom which especially leads him to its choice. In one case, it greatly relieved the cough and other concomitants of an aneurism of the descending aorta."—*Hughes*.

Therapeutic Individuality.

Respiratory Organs.—Since Hahnemann's introduction of Spongia for croup, no remedy has proved of more value in this disease where the acute inflammatory symptoms have been subdued by Aconite, and the dry, hoarse, croupous, irritating cough is a constant symptom. Not of much use in membranous form.

"Cough dry and is sibilant, sounding like a saw driven through a pine board, each cough corresponding to a thrust of the saw."—*G.* [Acute non-inflammatory form.]

"Great dryness of the larynx, with hoarse, hollow, wheezing cough; chronic hoarseness and cough; the voice frequently giving out when talking or singing."—*G.* [Complete aphonia.]

"Incessant cough, from a place low down in the chest where it pains as if sore and bloody, from coughing."—*Hah.*

"Dry cough day and night, with burning in the chest, as from something hot internally; disappears from eating and drinking."—*Hah.*

Expectoration decidedly salty; usually no expectoration.

"Difficult respiration, as if a plug were sticking in the larynx, and the breath could not get through, on account of constriction of the larynx."—*Hah.* [Chronic cases, with glandular affections.]

"Pain in the chest and bronchi, with rawness in the chest and throat when coughing."—*Hah.* [Dry, racking bronchitis.]

Dry coryza; chronic dry nasal catarrh; nose entirely occluded.

"Dyspnoea, and great weakness in the chest, so that she could hardly talk after exercise."—*Hah.* [From anæmia.]

Goiter.—Many cases have been cured with this remedy; but it is not as reliable as Iodine. Where it is indicated, there are many stitching pains in the goiter. If there is a dry laryngeal or tracheal cough, Spongia is still more indicated.

Head.—Great joy, soon followed by sadness.

"Irresistible desire to sing, with excessive mirth."—*Hah.*

"Fear of the future; tired of life."—*Hg.* [In chronic orchitis.]

"Congestion of blood to head, throbbing in forehead."—*Hah.*

"Vertigo at night, with nausea."—*Hg.*

Sharp stitches in the scalp, with heat of scalp.

Digestive Organs.—Taste bitter, with dry tongue.

Increased appetite, great hunger, with excessive thirst.

"Ulcerative feeling in the pit of the stomach."—*Hg.*

"Can not tolerate tight clothing about the stomach."—*Hg.*

"Stomach feels flaccid, and as if standing open."—*Hg.*

Constipation, stool hard, insufficient, with soreness of anus.

Sexual Organs, Male.—"Smooth swelling; inflammation and induration of the testicles."—*Hempel.* [Chronic cases.]

"Testicles swollen hard, screwing, squeezing, with stitches up into the cord; motion brings on throbbing; maltreated orchitis; also after checked gonorrhœa."—*Hg.* [Much despondency.]

Indurated and enlarged inguinal glands and lymphatics.

Sexual Organs, Female.—Induration, enlargement of ovaries.

"Menses too early and too profuse; preceded by colic, soreness in the sacrum, and craving in the stomach."—*G.*

"Violent drawing in the upper and lower extremities during the menses."—*G.* [Which are too early and too profuse.]

Heart.—"Attacks of severe oppression and pain in the region of the heart; all the symptoms aggravated by lying with the head low; inability to lie down at night."—*Dr. J. B. Bell.*

"Every day several attacks of heat, anxiousness, pain."—*Hg.*

"Rush of blood to the chest, and palpitation of the heart, with full, rapid pulse."—*Hah.* [Lack of nutrition in young people.]

"Angina pectoris; contracting pain in chest, heat, suffocation, faintness, and anxious sweat."—*Hg.* [Organic heart disease.]

"Rheumatic endocarditis, loud blowing with each heart-beat."—*Hg.*

Valvular insufficiency; awakened at night with suffocation and violent palpitation, and great alarm.

"In people with dark hair; nervous temperament; on left side."—*Dr. H. C. Jessen.*

Aggravation.—In the evening, until midnight; lying with head low; when ascending, and during perspiration.

Amelioration.—During the day; when descending, and the cough by eating and drinking.

STANNUM.

Tin.

An element in Europe, Asia, etc.; Trituration.

Through the cerebro-spinal system, Stannum has four special centers of action:

- I. CEREbro-S. SYSTEM. *Neurasthenia; Neuralgia; Paralysis.*
- II. SEXUAL ORGANS. *Profound Neurasthenia.*
- III. LUNGS. *Catarrhal Inflammation; Bronchorrhœa.*
- IV. DIGESTIVE ORGANS. *Vermicide; Enteralgia; Constipation.*

Cerebro-Spinal System.—Stannum produces a state of neurasthenia and complete prostration of the animal nervous system, with its neuralgiæ, etc. Dr. Hughes says: "More satisfactory is the evidence of the neurotic influence of Tin derived from the observed effects of the Chloride. Pereira's account of this salt is naively Homœopathic: 'When taken as a poison, it causes convulsive movements of the muscles of the extremities and of the

face, and sometimes paralysis. It has been used . . . as an anti-spasmodic in epilepsy, chorea, and other convulsive diseases, and as a stimulant to paralyzed muscles in paraplegia; it has produced catalepsy in a dog." [In the motor sphere, Tin produces convulsions and paralysis; in the sentient sphere, neuralgia.]

Sexual Organs.—In both sexes, Tin produces profound debility and neurasthenia of the sexual organs.

Respiratory Organs.—Tin acts upon the mucous membrane of the lungs, especially that of the bronchioles, producing catarrhal inflammation, and profuse muco-purulent expectoration, with dilatation of the bronchi, and complete exhaustion of the nerves of the lungs. No remedy produces such a feeling of weakness of the lungs as that caused by Tin.

Digestive Organs.—Tin is ranked as a prominent vermicide by all writers; and its anthelmintic powers have been attributed to its local mechanical action; but Hahnemann demonstrated that Tin was an actual narcotic to these parasites, capable of so stupefying the tape-worm, lumbrici, and ascarides, that purgatives would dislodge them at once. Even the third trituration would produce this effect. Tin is of great value in helminthiasis.

Tin acts specifically upon the liver, as shown by the marked hypochondriasis. The nerves of the bowels are so prostrated that we have much colic; diarrhoea, but more apt to have the bowels constipated.

Therapeutic Individuality.

General Indications.—In diseases where Tin is especially to be thought of, there is profound prostration of the whole nervous system; patient must drop down, but can get up very well.

"Goes up stairs well, but becomes very faint in coming down."—*G.*

"Reading aloud or talking produces great exhaustion."—*G.*

The great prostration of the cerebro-spinal nervous system is remarkable, compared to the slight disturbance of the vegetative sphere.

Great weakness of the legs; they are not able to support the body, from profuse prostration of the cerebro-spinal system.

"The pains commence lightly, increase gradually to a very high degree, and decrease again as slowly."—*Hah.*

In almost all diseases the patient has a feeling of great weakness and exhaustion in the chest. (Neurasthenia.)

Head.—"Her distress of mind ceases as soon as the menses begin to flow."—*G.* [Anxiety and disposed to weep.]

Dizziness; the whole head feels heavy, with sadness.

"Sullen; answers unwillingly and shortly."—*Hah.*

"Constriction and sudden pressure in the whole upper part of the head, slowly increasing and decreasing."—*Dr. Gross.*

"Pressure in the left temple, beginning slight, then increasing, and so again diminishing, as if the forehead would be pressed inward."—*Dr. Gross.*

"Neuralgia of the head; begins lightly and increases gradually to its highest point, and then gradually declines."—*Hah.*

"Face pale and sunken, sickly; features elongated."—*Hah.*

Digestive Organs.—Tongue yellow, coated heavy with mucus.

"Bad odor from the mouth."—*Hah.* [From chronic bronchitis.]

"Thick mucus adheres firmly to the throat, and the efforts to raise it excite an almost resistless inclination to vomit."—*Dr. Pitet.*

Throat sore and feels raw during deglutition; chronic catarrh.

Insatiable hunger; can not eat enough, from indigestion.

Bitter or sour eructations, with pressure in pit of stomach.

"Vomiting of blood; of bile and mucus on awaking in the morning; of water when smelling cooking."—*Hg.* [General neurasthenia.]

"Sinking, gone feeling in the epigastrium."—*Hg.* [Portal congestion.]

"Uneasy, knows not what to do with himself, pains relieved by walking, yet so weak he soon must rest."—*Hg.* [Anæmia.]

"Cardialgia, pains gradually come and go, extend to the navel, relieved by hard pressure."—*Hg.*

"Burning in the hepatic region; cutting pains about the navel; pains as if from an ulcer; empty feeling after eating."—*Dr. H. C. Jessen.*

"Pressure on the abdomen relieves the pain when the child is crying with colic; relief is at once obtained by carrying it with its abdomen resting upon the point of the nurse's shoulder."—*G.*

Children that are frequently afflicted with worms; lumbrici.

"Sensation of emptiness in the abdomen."—*G.* [With great hunger.]

"Stools green, curdy, with colic."—*Jessen.* [Abdomen sore.]

Constipation with ineffectual desire for stool; stool does not relieve; constipation predominates; not able to defecate.

Urine profuse and pale, or scanty and loaded with phosphates.

Sexual Organs, Male.—Irritation with great weakness and nocturnal emissions, and marked neurasthenia.

"Voluptuous feeling in the genitals, with emissions."—*Hg.*

Spermatorrhœa where the greatest symptom is excessive prostration.

Sexual Organs, Female.—Excited sexual desire; easy orgasm.

"Scratching the arm produces an intolerable sensation of pleasure in the genital organs which extends to the uterus, and produces sexual orgasm."—*Teste.* [With neurasthenia.]

"Menses too early, too profuse, preceded by melancholy; pain in the malar bones which continues during the menses."—*Hg.*

"Leucorrhœa with marked loss of strength; the weakness seems to proceed from the chest."—*G.* [Marked characteristic.]

"Bearing-down in the uterine region; prolapsus uteri and vaginæ; worse during stool; feels so weak she must drop down suddenly, but can get up readily."—*Hg.* [Neurasthenia.]

"In prolapsus uteri, I have hardly ever known it to fail, and have been astonished at its power over prolapsus; it seems to strengthen the uterine ligaments."—*Hughes.*

"Labor-pains produce great exhaustion from weakness in the chest; is all out of breath; can not talk, feels so weak."—*G.*

Chest.—Chronic bronchitis, with profuse greenish expectoration, and great debility; legs are not able to support the body; all the weakness centers in the chest.

"Laryngeal phthisis, with constant short, irritating, hacking cough and aphonia, with empty feeling in the chest."—*Hg.*

"If she has a cough with expectoration, the expectoration causes a weakness in the chest."—*G.* [This exceeds all others.]

"Profuse greenish expectoration in bronchitis."—*Dr. Douglas.*

"Mucus in the trachea, in the forenoon, easily expectorated, with great weakness of the chest, as if eviscerated, with weakness of the whole body and limbs."—*Dr. Franz.* [Neurasthenia.]

"Hoarseness, weakness, and emptiness in the chest, on beginning to sing, so that she was constantly obliged to stop and take a deep breath; at times a few expulsive coughs removed the hoarseness for a moment."—*Dr. Gross.*

"Scraping cough, with greenish expectoration of an offensive sweetish taste, worse in the evening, with hoarseness, and soreness of the trachea and chest, provoking a cough; fatiguing paroxysms of cough, so that the epigastrium was painful as if beaten."—*Hah.* [Chest feels eviscerated it is so weak.]

"Short, difficult respiration, caused by weakness of the respiratory organs, with great emptiness of the chest, though without dyspnœa."—*Dr. Gross*. [Pale, anæmic subjects.]

"Dyspnœa from slight motion."—*Guttmann*.

Every motion oppresses the breathing, especially evenings.

Limbs.—Arms so weak that he can not hold anything.

Great loss of strength in the arms and legs; have no strength in them; the legs can not support the body; neurasthenia.

Excessive prostration of mind and body, must sit or lie down; when about to sit down, falls upon the chair, for want of strength to sit down; this is a prominent characteristic of Tin.

Paralytic weakness of the arms and legs, with swelling of the hands and feet in the evening; general anæmia.

Aggravation.—Evening, during rest; from cold, talking, and from motion.

Amelioration.—When lying or sitting down; from warmth, and during the day.

STICTA PULMONARIA.

Lungwort.

Habitat: Europe, etc. Tincture of the fresh lichen, Class III.

Through the cerebro-spinal nervous system, Sticta has one special center of action:

I. MUCOUS MEMBRANE. (LUNGS.) Catarrhal Inflammation.

Mucous Membrane.—Sticta produces catarrhal inflammation of the respiratory mucous membrane; and where excessive dryness of the mucous membrane predominates, has proved of great value.

Therapeutic Individuality.

"Excessive dryness of nasal mucous membrane."—*Boyce*.

Feeling of fullness at the root of the nose; acute catarrh.

"The secretions are so quickly dried that they are discharged, after great effort, in the form of hard scabs."—*Boyce*.

"The soft palate felt like dried leather, with painful deglutition."—*Dr. Boyce*. [Sub-acute and chronic catarrh.]

"Cough at first dry and hacking, from tickling in the larynx, which finally extends to the lungs."—*Dr. D. S. Jones.*

"The characteristic of *Sticta* in catarrhal affections (nasal) is a constant necessity of blowing the nose, but no discharge results,—analogous to the well-known symptom of *Nux vomica*, futile calls to stool."—*F.*

Great desire to talk, must talk anyway, can not keep quiet.

"Often useful in insomnia, from various causes."—*F.*

"In sleeplessness of children, after surgical operations (setting fractured leg, e. g.), I have found it to act like a charm."—*F.*

Laryngeal and tracheal catarrh; continuous dry cough at night.

Aggravation.—Night and in damp weather.

Amelioration.—During the day.

STILLINGIA SYLVATICA.

Queen's Root.

Habitat: America, etc. Tincture of the fresh root, Class III; dried root, Class IV.

Through the vegetative nervous system, *Stillingia* has four special centers of action:

- I. MUCOUS MEMBRANES. *Inflammation; Bronchorrhœa.*
- II. LYMPHATICS. *Acrid Secretions; Hypertrophy.*
- III. FIBROUS TISSUE. *Rheumatoid Inflammation; Nodes.*
- IV. SKIN. *Eczema; Ulcerations, Discharging Much.*

Mucous Membranes.—The action of this drug is centered especially upon the mucous membrane of the respiratory organs, greatly increasing the mucous secretions; and also upon the renal organs and digestive apparatus. In full doses, it purges violently.

Lymphatic Glandular System.—This drug congests and greatly perverts the lymphatic secretions; and it has been of much value in scrofulous affections, especially in children with enlarged cervical glands, muco-purulent discharges, excoriations.

Fibrous Tissue.—*Stillingia's* action is principally centered upon the periosteum, as shown by the painful nodes on the skull

and limbs, and many rheumatic symptoms. Its action greatly resembles that of *Phytolacca* and *Mezereum*. Its therapeutic value in secondary syphilis and chronic rheumatism has been very great. It also acts specifically upon the cartilages of larynx.

Skin.—Here it produces eczema, and a dull red, soft, and tubercular eruption on the skin, ulcerating, and discharging quantities of pus.

Therapeutic Individuality.

Chronic scrofulous skin diseases, especially if complicated with venereal rheumatism, with copious suppuration.

Mild secondary syphilis, with immense nodes upon the head and legs; severe bone-pains and great depression of spirits.

In chronic periosteal rheumatism, it is of much value.

"Distressing aching pains in the long bones, with nodes, in secondary syphilis."—*Dr. H. N. Martin*. [Rheumatism.]

Sciatica in syphilitic patients, very obstinate, with nodes.

Copious muco-purulent leucorrhœa, with rheumatic pains.

Laryngitis, especially if of a syphilitic character, with hoarseness and dry, spasmodic cough, or it may be loose.

"Toward evening, excessively dry cough, produced by a tickling sensation in the trachea."—*Dr. T. Eckles*. [With rheumatism.]

In torpidity of the liver, with jaundice and great depression of the mind, with constipation, *Stillingia* acts nicely.

Aggravation.—Afternoon, damp air, and motion.

Amelioration.—Morning, and dry air.

STRAMONIUM.

Thorn Apple.

Habitat: North America, Europe, etc. Tincture of the fresh plant, Class I.

Through the cerebro-spinal nervous system, Stramonium has six special centers of action:

- I. CEREbro-S. S. *Spasms; Furious Delirium; Obstinate Insomnia.*
- II. EYES. *Mydriatic; Inflammation.*
- III. SEXUAL ORGANS. *Aphrodisiac; Great Indecency; Impotency.*
- IV. VASO-M. CIRC. *Tonic Capillary Contraction; Temp. Incr'd.*
- V. DIGESTIVE O. *Spasms of Throat; Dryness; Constipation.*
- VI. SKIN. *Fierly Redness of Skin; Vesicular Erysipelas.*

Cerebro-Spinal System.—The power Stramonium possesses of deranging the sensorium and cerebral nerves, is remarkable. It causes more furious delirium than Belladonna, but not so much congestion of blood to the head; still, it produces more congestion than Hyoscyamus. The irritating or neurotic powers of Stramonium seem almost wholly spent on the sensorium. "Functional derangements of the abdominal organs seem to result from a sympathetic irritation, rather than from direct influence of the poison."

"With the delirium are hallucinations; dilated pupils; amaurosis; diminished general sensibility; extreme mobility of the muscular system, with loss of voluntary control; sexual excitement; spasmodic dysphonia and dysphagia; great dryness of the throat, and frequently a bright red eruption on the skin. If the poisoning goes on, congestive sopor and general palsy set in."—*Hughes.*

An over-dose of Stramonium taken by the soldiers at Jamestown, illustrates most beautifully the mental symptoms. "Beverly informs us that they turned natural fools for several days. One would blow up a feather in the air, another would dart straws at it with much fury; and another, stark naked, was sitting up in a corner, like a monkey, grinning and making mouths at them; a fourth would fondly kiss and paw his companions, and sneer in their faces, with a countenance more antic than in any Dutch

droll. In this frantic condition they were confined, lest they should in their folly destroy themselves; though it was observed that all their actions were full of innocence and good nature. After eleven days they returned to themselves again, not remembering anything that had passed. In another case, the patient seemed plunged in a reverie, which was interrupted by sudden shrieks, or by convulsions, and in others still, the delirium was so furious as to call for forcible restraint; the head being hot, the pupils largely dilated, the face bloated and red, and the hands and feet cold and tremulous. In one case, when a cup of water was brought to the patient's lips, she would instantly start from it, and relapse into a convulsive paroxysm. At no period in the progress of the symptoms, until death seems imminent, is there the least tendency to sleep; on the contrary, there is obstinate insomnia; and yet, on the recovery of the patient, he retains no distinct recollection of what has occurred."—*Stille*.

Eyes.—Through the sympathetic, Stramonium produces extreme dilatation of the pupil; the conjunctiva injected; the sight very much confused; to one man, black objects appeared green.

Daturia dilates the pupil more rapidly than Atropia; but the effect is not so lasting, and it is never followed by contraction of the pupil; yet it irritates more than Atropia.

Spine.—Its action is shown here to be more on the motor tract, from the violent convulsions produced; but the conducting power of the motor and sensory nerves is not destroyed. The muscular contractility is not affected.

Sexual Organs.—As an aphrodisiac, Stramonium has been used to produce intoxication for licentious purposes. Wendt used it to lessen venereal excitement in nymphomania; and, in puerperal mania, it stands at the head of our remedies. The indecent and voluptuous sexual excitement, exposing the sexual organs, is a marked symptom of this drug. This is followed by complete prostration of sexual desire, and temporary impotence.

Circulation.—Stramonium has a marked action upon the heart and arterial capillary blood-vessels. Probably most of its action is upon the vaso-motor nerves; but MM. Oulmont and Laurent think Hyoscyamus and Stramonium both act alike. Of its influence over the sympathetic, they say: "1. Hyoscyamia and Daturia act especially on the sympathetic. 2. In small doses, they reduce the capillary circulation [exhaust the irritability of the vaso-motor system]. 3. The arterial tension is increased by

the administration of weak, and is diminished by powerful, doses. These effects are not modified by section of the vagi. 4. The frequency of the pulse is increased, and its fullness diminished. 5. Hyoscyamia renders the movements of the heart regular. Daturia often produces intermittence and arrest of action. When applied directly, both alkaloids slow, and finally arrest, the beats. 6. Both always accelerate the respiration. 7. Small doses generally give rise to slight increase of temperature; large doses diminish the central temperature."

Digestive Organs.—Great dryness of the throat is a marked effect of this drug, with intense thirst and terrible spasms of the throat on attempting to swallow. Small doses accelerate the movements of the intestines, and large doses paralyze them. From this muscular paralysis, we have excessive accumulation of gas in the intestines. It produces diarrhœa; but the marked and lasting effect is obstinate constipation. The sphincters are paralyzed by large doses. This effect of Stramonium is similar to that of Belladonna, but not nearly so marked. It produces complete suppression of the urine.

Skin.—From irritation of filaments of the spinal nerves, Stramonium produces "a fiery redness of the whole body, and a petechial rash on chest and back, likewise upon lower extremities."

"The skin is sometimes profusely covered with a bright red eruption, which may be followed by a crop of minute vesicles; or the eruption may resemble erysipelas, at first, and measles at a later period."—*Stille*.

Therapeutic Individuality.

Mind and Head.—"There are few neuroses in which Stramonium is not more or less useful. It is our chief remedy in acute mania, to which it is more homœopathic than the inflammatory Belladonna; and it is hardly less valuable in delirium tremens, when assuming the active form described as 'mania a potu' by older writers. The constant association of hallucinations with its delirium makes it very appropriate here, and wherever else they occur."—*Hughes*. [Excellent in low nervous fevers.]

Rush of blood to the head, with furious loquacious delirium.

"Loquacious delirium; disposed to talk continually, with desire to escape out of bed."—*G*. [And expose their genital organs.]

"Imagines all sorts of things; that she is double, lying cross-ways; pangs of conscience, thinks he is not honest; does not know his friends; raves about his business."—*G*.

" 'There,' he replied, 'a long train of bed-bugs, and after them a procession of beetles, and here come crawling over me a host of cockroaches.' He sank back in alarm; then suddenly he turned to me, saying, 'I believe I know they are not really bugs; but, except once and awhile, they seem real to me.' Many times repeated."—*D.*

"In mania, this is a most valuable remedy. The form which requires it has less fever than that of Belladonna,—more convulsion of isolated groups of muscles; more hallucination. It has more fever than that of Hyoseyamus, less loquacity; no quarrelsomeness, but, on the contrary, good nature. The hallucinations are real, not, as under Hyoseyamus, half real, bewildering the patient."—*D.*

Muttering delirium, with an extreme degree of nervous erethism, trembling, convulsions, and restlessness.

"Desires light and company; worse in the dark and solitude; awakens with a shrinking look, as if afraid of the first object seen."—*G.* [Puerperal mania, and insanity.]

"Mock laughter when looking at the picture of his father; face red; eyes wild, alternating with melancholy."—*G.*

"Young men or women who pray, sing, or talk so devoutly and constantly as to excite the sympathy of all the house."—*G.*

"Child is delirious; does not know where it is; calls for papa and mamma, although they may be present trying to console it."—*G.*

"Sight of brilliant objects, and contact, renew the spasms; wild thoughts when she is awake; frightful sensations, without perspiration."—*G.* [Excessive nervous hyperæmia.]

"Continually strange objects intrude upon his fancy, frightening him; they appear to grow out of the ground at his side, in the form of large dogs, cats, and other horrible beasts, from which he springs away to one side with signs of terror, and can not get rid of them."—*Dr. Franz.*

"Excessive aversion to water, amounting even to rage, when it was attempted to administer any liquid, appearing like hydrophobia; he even had the spasmodic irritation of the pharyngeal muscles, so that anything taken choked him and was regurgitated."—*Dr. Grienberg.*

"The sight of a light, a mirror, or water, excited horrible convulsions."—*Hah.* [Well-marked hydrophobia.]

It has cured a number of cases of hydrophobia, so called by our best physicians, whom we must believe.

"Vertigo when walking in the dark, day or night; he staggers and falls down every time he attempts to walk; the same when walking in a darkened room in the day-time."—*G.* [Bad effects of fermented liquors.]

Stramonium produces no special headache, but has great congestion of blood to the head, with convulsive movements; the face swollen and distorted.

Eyes.—"Excessive dilatation of the pupils, with staring eyes; great confusion of sight; motes appear in vision; conjunctiva injected; as if the vessels were filled with dirty liquid."—*Dr. Hoering.* [Acute conjunctivitis.]

Dilatation of pupils so great that vision is completely lost.

"Light dazzles; shuns light; convulsions from brilliant objects."—*Hg.* [In great excitement of the cerebrum.]

Double vision; illusion of colors; often dark blue or red; everything seems to be tipping over; everything is in a fog.

Has cured strabismus from disease of the brain.

Ears.—Very sensitive to noises; least noise startles him; otalgia worse at night; nervous deafness.

Mouth and Throat.—Excessive dryness of the mouth.

"Lips sore and cracked, with sordes on the teeth."—*Neidhard.*

"Speech stammering, difficult, unintelligible."—*Dr. Rohrer.*

"Glairy saliva dribbling from the mouth."—*Dr. Shortt.*

Saliva excessively salty; in many extremely nervous people.

"Tongue yellowish-brown, dry in the center, or dry and swollen."—*Neidhard.*

"All kinds of food taste like straw; in fact, she has no taste."—*G.*

"Nausea, with flow of very saltish saliva."—*G.* [Enteric fever.]

"Constriction of the throat, and a kind of paralysis, so that swallowing was very difficult, almost impossible."—*Dr. Buckner.*

"Terrible spasms of the throat on attempting to swallow, like hydrophobia."—*Dr. Blake.*

"Distressing dryness of the fauces, which were very red, with difficult swallowing."—*Dr. Hoering.* [Acute scarlatina.]

Stomach.—Violent thirst, unallayed by water; craves acids.

"Vomiting of bile on motion or even sitting up in bed."—*D.*

"Hiccough; restlessness and wandering delirium."—*G.*

Epigastrium tense, hard, painful; cardialgia with vomiting.

Abdomen.—Abdomen hard, tense, tympanitic, and distended with gas, from paralysis of the muscles of the intestines.

Sudden violent colic, with much fainting and chilliness.

"Diarrhœa of a cadaverous odor."—*G.* [In small children.]

"Cholera infantum; foul-smelling stools; strabismus; face pale; awakens in a fright."—*Hg.* [Great nervous excitement.]

Constipation is a marked symptom of Stramonium; it may alternate with diarrhœa; and bleeding hæmorrhoids.

Urinary Organs.—Urine is suppressed, but great desire to urinate; eruptive fevers, with complete suppression of urine.

"Stramonium has been of greatest service in suppression of urine, without pain or discomfort, as usually occurs in long fevers, e. g., typhoid or typhus. Likewise in suppression of urine after miscarriage or after labor, where the desire to pass urine is great, but there is no ability to accomplish it."—*D.* [In all low adynamic fevers with great insomnia.]

"The urine dribbles away very slowly and feebly."—*G.* [Paralysis.]

In acute diseases of children, with little or no urine secreted.

Sexual Organs, Male.—Exalted sexual desire.

"Child constantly has hand on the genitals; onanism with spasms."—*Hg.*

Complete impotence from onanism, often but temporary.

Female.—"The menses are increased; the flow occurs in large coagula, with drawing pains in the abdomen or ileum."—*D.*

"Excessive loquacity during the menstrual period; face bloated with blood; with tears and prayers and earnest supplications."—*G.* [Hysterical and neurotic fevers.]

Pains are unbearable; drive the patient to despair.

"Extreme degree of nervous erethism; convulsions; trembling, and restlessness."—*P. P. Wells, M. D.* [Delirium tremens.]

"Nymphomania; lewd talking; sings obscene songs; has smell of semen."—*Hg.* [Puerperal insanity.]

"Scanty lochia; puerperal mania, milk still copious; many hallucinations; talks foolishly."—*Hg.* [Extremely nervous.]

"Puerperal convulsions, with copious sweating and great fear."—*Hg.*

Respiratory Organs.—Voice high, squeaking, or hoarse and croaking, from paralysis of the vocal organs.

"Convulsion of the laryngeal muscles and vocal cords, with shrill, fine, and high-pitched voice; has to make a great effort to get out a word; has no fever."—*D.* [Mucous membrane dry.]

"Respiration accelerated, and very difficult."—*Dr. C. G. Polk.*

Spasmodic, dry cough with excessive sense of suffocation.

"No cough, as with Belladonna or Hyoseyamus; but respiration is difficult and constricted; generally with anxious respiration and lividity of the face. A pressing pain in the chest, which is provoked by talking, with difficult respiration; it is hardly possible to draw in the breath; asthma."—*D.*

Asthma, not caused from heart disease, but neurotic, centering wholly in the lungs. Smoking the dried root or leaves, and inhaling the smoke into the lungs, has cured many cases; and it almost always gives temporary relief. Ten grains of the root, or twenty of the leaves, should be used at a time. The smoking is most useful at the commencement of the attack, but of little service after fully developed, and the lungs loaded with mucus.

"Beating of the heart so increased by motion he can not speak for hours; trembling twitching as in chorea; murmurs instead of regular sounds; consequent on fright."—*Hg.*

Pulse rapid, full, strong, or soft and feeble, in neurotic diseases.

Neck and Back.—"Remarkable sensitiveness along the spine in the cervical region, the slightest pressure caused the most violent outcries and raving."—*Dr. Wittman.* [Neurasthenia.]

Drawing pains in the small of the back; rheumatoid affections.

Limbs.—"Twitching of the hands and feet."—*Dr. H. Y. Evans.*

Much trembling of the whole body, and of hands and feet; very restless.

The convulsions that are produced by Stramonium are partial rather than general, affecting the arms rather than the lower extremities; affecting, also, isolated groups of muscles. It has been found of great use in chorea; but it must be aided with nutrition remedies, as Calcarea, Natrum mur., Sepia, or Sulphur, for a permanent cure.

"Coxalgia, left side; violent pain when abscesses form."—*Hg.*

In caries of the left hip (*morbis coxarius*), Dr. Jeanes has given it with extraordinary success, so much so that he recommended it as a specific for this destructive disease.

Limbs paralyzed after apoplexy, or from spinal softening.

Limbs feel numb, as if gone to sleep; hands and feet very cold in nervous diseases, brain highly congested.

Skin.—"The use of Stramonium as a therapeutic agent has been nearly exclusively confined to affections of the brain and nervous system. The only exception is *scarlatina*, in some forms

of which Stramonium may be more useful than Belladonna. The distinguishing characteristics of the two drugs, in the same malady, are well given by Dr. P. P. Wells. He lays stress on presence of an extreme degree of nervous *erethism*, with trembling, restlessness, etc., indicating Stramonium in Scarlatina, with furious delirium.

"In scarlatina, Stramonium stands next to Belladonna. The eruption is like it; the fever is less than that of Belladonna, the throat affection less. At the same time, from the increased flow of urine, Stramonium is strongly indicated."—*D.*

"Intensely red rash on the skin, resembling scarlatina, but having a more shining appearance."—*Kemberling.*

Suppression of all the secretions and excretions. Differences between Stramonium and Belladonna. The secretions are greater in the former than in the latter.

Measles before eruption, with convulsions and face red and puffed, with wild delirium.

Fever.—Coldness of the whole body, especially with great nervous excitement; don't want to be covered.

"Violent fever; skin dry and burning hot, especially the face."—*W. H. Cuthbert, M. D.* [Acute erysipelas.]

Hot, red face, with cold feet. Covers up during the fever.

"Cold sweat on the whole body."—*Hughes.* [Puerperal fever.]

"Anxious heat with vomiting."—*Hg.* [Patient with typhoid fever.]

Low nervous, typhoid, and typhus fevers with restlessness and hallucinations of the mind; the restlessness is at the extreme, even to convulsions.

Puerperal fever, with great *erethism* and insomniacal delirium.

Aggravation.—Morning and night; when alone; dark; from looking at glistening objects; and from attempting to swallow water.

Amelioration.—From company; light and warmth; the house.

SULPHUR.

Flowers of Sulphur.

An element, in Europe, Asia, America, etc.; Trituration. To prepare the *Tincture*, take one part by weight of flowers of Sulphur to ten parts by weight of absolute Alcohol. When well shaken let stand twenty-four hours, when the clear liquid is poured off. This represents the 1st centesimal.

Antidotes.—Merc., Rhus, Sepia, Pals., Cham., Acon., Camph., Cinch., Nux vom.

Through the great vegetative nervous system, Sulphur acts upon every organ and tissue in the body, but selects more especially the nine following tissues :

- I. VENOUS S. *Chronic Capillary Congest.; Exudation; Suppur.*
- II. PORTAL S. *Chronic Congest.; Hæmorrhoids; Constipation.*
- III. LYMPHATICS. *Secretions Exces. Acrid, Excoriating All Parts.*
- IV. SEROUS M. *Serous Effusions; Exudative Inflammation.*
- V. MUCOUS M. *Excessively Excoriating Mucorrhœa.*
- VI. SKIN. *Vesicular and Pustular Inflammation; Alopecia.*
- VII. SYMPATHETIC NERVOUS S. *Defective Assimila.; Hot Flashes.*
- VIII. BLOOD. *Fibrine Increased; Rheumatoid Affections.*
- IX. SULPHUR FUMES. $\left\{ \begin{array}{l} \text{Disinfectant, Deodorizing. No Animal Life} \\ \text{Can Live in Sulphurous Acid Gas.} \end{array} \right.$

Venous System.—Sulphur is the king of remedies, around which centers the whole *Materia Medica*. It acts especially upon the vegetative or ganglionic system, and through this, upon the venous capillary vessels throughout the body, producing capillary paralysis and venous engorgement of a long-lasting, chronic nature, with a long train of symptoms, found in about every disease that affects the human organism.

Prof. Hempel says: "It is the venous capillary system which receives the primary shock of this mighty agent, together with that portion of the ganglionic system of nerves which is immediately connected, or interwoven, with the capillary tissue. If you remember, that, under the depressing action of Sulphur, the venous capillaries become congested, the stagnant blood resisting the arterial current, which seeks to drive it outward, you can not

have any difficulty in understanding the various drawing, tearing, cramping, boring, laming, stitching, and other pains, which Sulphur is capable of exciting."

When it is remembered that venous capillaries are to be found in every organ and tissue in the body, and that Sulphur produces, through the ganglionic system, which forms plexuses, or retinæ, around the capillary vessels, paralysis of their walls, we can readily understand the consequences of paralysis and stagnation in the venous capillaries, such as "chronic congestion, exudation, and suppuration of internal organs, and the various eruptions, vesicles, pustules, boils, ulcers, etc., with which Sulphur is in so eminent a degree in curative adaptation." This explains why Sulphur has such a vast and wide range of usefulness.

Upon the Portal System, it has a great influence, producing venous engorgement, with a long train of symptoms, especially in the lower bowels and rectum,—as shown by the great congestion of the hæmorrhoidal veins, producing piles of an immense size, with obstinate constipation; and it is a well-known fact that *no remedy* is more useful in chronic, obstinate hæmorrhoids.

This venous congestion is shown in the constant heat in the top of the head; the veins of the hands swollen and burning, with burning of the soles of the feet; must stretch the hands and feet, and restlessness throughout the body.

Lymphatic Glandular System.—No remedy perverts and produces acidity of the lymphatic secretions to such a degree as Sulphur. This is shown by all of the discharges in every outlet of the body being so acrid as to excoriate the skin wherever they come in contact.

The discharges from the eyes, uterus, vagina, bladder, and bowels, all produce excessive excoriation; and no symptom produced by Sulphur is a more certain guide for its selection in disease than this power of the discharges to produce excoriation.

Reil says: "The therapeutic bearing of Sulphur to the glandular system becomes plain from the fixed fact that it affects the *whole lymphatic system* as well as *all secreting surfaces*, and hence, also, the glands; and it has been employed with the best results in diseases that have taken root there."

"Sulphur penetrates the entire organism, even in its finest and most recondite portions. It increases the activity of the vegetative life generally, and of the process of secretion and absorption in particular. It accelerates the interchange of elements and makes it more pervading; in a word, it fulfills all the de-

mands upon which the removal of an abnormal product is conditional. Upon these grounds, we apply Sulphur to the removal of pneumonic infiltration, of serous exudations, and of old as well as recent deposits in the skin, the parenchyma, the joints, and the bones."—*Wurmb*.

"This generalization of Dr. Wurmb gives us an explanation of the beneficial action of Sulphur in the second stage of exudative inflammation throughout the body; as in meningitis, ophthalmia, otitis, peritonitis, hæmorrhoidal tumors, pleuritis, pneumonia, periostitis, ostitis, adenitis, and pericarditis."—*D.*

Sulphureous waters are highly esteemed in France and Germany as a test for syphilis in doubtful cases of rheumatism or exanthema. A short course of these waters soon reveals the latent syphilis upon the skin or mucous membranes.

Mucous Membranes.—In its action upon the mucous membranes, especially those of the eyes, bronchi, small intestines, rectum, and genito-urinary organs, Sulphur produces increased mucous discharges that are excessively acrid, so that all parts touched by the secretion become raw and excoriated.

Skin.—No remedy has a more powerful action upon the skin than Sulphur.

Through its action upon the venous capillaries and lymphatics, it causes vesicles, the eruption so much resembling the itch that one of the provers feared it might be this disease. It also causes pimples, blotches, boils, various forms of herpes, erythema, tinea capitis, ulceration of the nails, loss of hair, intertrigo, chloasma, and various forms of ulceration.

Sympathetic Nervous System.—Sulphur has a specific and powerful action upon the sympatheticus, producing defective assimilation; but little nourishment is obtained from the food, notwithstanding the appetite is pretty good.

The solid constituents of the blood are diminished. The metamorphosis of the blood cells in the liver, according to Dr. Boecker, is considerably increased, and there is increased biliary secretion; in fact, all of the secretions and excretions are increased by large doses of Sulphur. Its action is still further shown by the frequent hot facial flushes followed by perspiration and a faint feeling; vertex-heat and cold feet alternating with hot soles; hunger at 11 a. m., or a faint, empty feeling in the epigastrium; constipation, or sudden and urgent diarrhœa in the early morning; great debility which can not be accounted for

by the amount of gastric and bilious derangement. The nervous prostration is a complete picture of neurasthenia.

Prof. E. A. Farrington, speaking of the action of Sulphur on the circulation, says: "It may be assumed as a general characteristic that Sulphur causes congestions to all parts, scarcely ever being of use unless the vascular system is deranged (see headache), eyes (congestion in a warm room, hot weather), ears (external ears red, etc.), face (red blotches, etc.), nose (red, whether or not caused by Alcohol; nose-bleed), chest (asthma, hæmoptysis, pleurisy with congestion to the lungs, pneumonia, palpitation toward evening from rush of blood), abdomen (plethora, portal fullness, hæmorrhoids, hemorrhages from the bowels, etc.), genitals (exciting to onanism; emissions, sweat of the parts, congestion to the uterus, etc.), limbs (congestion, varices). Fever: Before chill thirst; during chill, pale, cold face; or heat of the face, delirium; chill from 5 to 8 p. m., or in the forenoon; begins in the feet, or runs up the back; chill in bed. Intense heat at night, without thirst, frequent flushes of heat; cold feet, hot vertex; not worse from uncovering. Worse with and after sweats. Sweat sour, empyreumatic, *with itching*; on the hands; one side; or only on the body. Night sweats only on the occiput and neck; worse a. m., *after awaking*. Intermittent type of fever, or a remitting type, with continued dry heat, harsh skin, no sweat; or no reaction, stupid, slow in answering questions; after suppressed itch; chronic cases."

All chronic diseases originate, and are especially located, in the ganglionic or great vegetative nervous system; and this being the grand center for the action of Sulphur explains why this drug is so useful in chronic diseases. The constitutional taint (Hahnemann's psora) that Sulphur is such a specific for, often manifests itself in many forms of cutaneous diseases. Even the rheumatic, gouty, scrofulous diathesis is often represented by eruptions on the skin, and we have no better remedy for chronic constitutional gout and rheumatism.

Disinfectant and Deodorizing Properties.—In the form of *Sulphurous acid fumes* or gas, Sulphur is the most powerful of all known agents as a disinfectant and deodorizer. To disinfect a room and clothing from infectious diseases, as small-pox, etc., first close up the chimney, and paste up all crevices of the windows and doors, to prevent the escape of gas. Now raise up all carpets, and hang up the clothes, so that the fumes of gas may have complete access to them. When this is done, set a tub in

the center of the room with six inches of water in it; in the center of this water, place a stone that comes just above the water; on this stone, set an iron vessel with two pounds of Sulphur broken up in quite fine pieces or lumps; on this pour a few ounces of alcohol, to make the Sulphur burn readily; set the alcohol on fire, and leave the room, closing the door behind you. It is well to repeat this fumigation three or four times.

Therapeutic Individuality.

General Indications.—The Sulphur patient is of a lymphatic, scrofulous temperament, subject to venous congestions; the skin is excessively sensitive and most powerfully affected by changes of temperature; full blooded, nervous, hasty in temper and motion. Scrofulous chronic diseases that have been caused by some eruptive disease repelled from the surface, seem to get almost well, when they return again and again. Dirty, filthy people full of ulcers.

Lean people who walk stooped, with congestion of blood to single parts. Children who are much emaciated, with big bellies, do not like to be covered, kick off the clothes, and dread to be washed.

"Standing is the worst position for Sulphur symptoms; walks stooping, like an old man; most symptoms on left side."—*Hg.*

Head.—The most characteristic and constant symptom of Sulphur is constant heat on the top of the head, palms of the hands, and soles of the feet; constantly putting the feet out of the bed to get them cool.

The patient is happy, has happy dreams, and everything looks beautiful.

"Irritable, cross mood; nothing seems right; very ill-humored, fretful, lachrymose; fault-finding, morning and evening."—*Hah.*

"Quarrelsome and vexatious mood about everything; vexed at everything and everybody."—*Hah.* [In rheumatic, gouty subjects.]

"Great anxiety, in the evening after lying down, so that she can not sleep, with heat of head, cold feet."—*Hah.* [Climacteric.]

"She takes pleasure in nothing; sad, discouraged, and weary of life."—*Hah.*

"Great distraction of mind, can not fix his mind upon anything; very forgetful; seems stupid, avoids conversation."—*Hah.*

Despondent, out of humor; weeps much; talks much in sleep, awakens with a start, often has somnambulism.

"Irresistible drowsiness in the day-time, and wakefulness the whole night."—*Hg.* [From chronic venous congestion of brain.]

"Short naps of sleep all night, or a dead, heavy sleep, which produces exhaustion; has happy dreams, wakens singing, is very happy."—*G.*

Anxious about the salvation of his soul, with indifference to the welfare of others; great tendency to religious subjects.

"Foolish happiness and pride, thinks herself in possession of beautiful things; even rags seem beautiful."—*Hg.*

"Child frequently awakens screaming,—a first symptom of acute disease."—*Hg.*

"Child jumps, starts, screams, and lies awake late, kicks off the clothes."—*Hg.*

"Vertigo, more apt to be in the morning, is often accompanied by nosebleed, may occur in the evening or at night in bed; produced or aggravated by stooping, walking in the open air, and by looking at objects in rapid motion."—*D.*

"Great confusion of the head; very giddy; feeling as if a band were tied tightly around the forehead."—*Dr. L. Kastler.*

"Vertigo when walking in the open air; did not dare to stoop or look down; obliged to steady herself to avoid falling."—*Hah.*

Great fullness of head, as if filled with blood; chronic vertigo.

"At night in bed, rush of blood to the head, with heat and confusion; especially during the menses."—*Hah.*

"Sulphur cures congestion to the head; throbbing deep in the brain; also heart and carotids; humming in the head; headache with throbbing increasing with the increase of fever."—*Farrington.*

"The headache is often attended by nausea; the hair falls out; and the forehead is covered with acne."—*D.*

"Pressive headache in the forehead, more violent on motion, with great restlessness."—*Hah.*—[From venous congestion.]

"Hammering headache; aching of the frontal bone."—*Hah.*

"Headache in the vertex as from pressure on the top of the brain."—*Hah.*

Rheumatic headache; tearing, hammering as if the brain were beating against the skull; especially on motion, and in wet weather.

"Throbbing headache in left occiput every night."—*Dr. Gregg.*

Sick-headache once a week; pains stupefying; numbing; walking is very painful; worse at night, and damp, cold weather.

Small vesicles on the top of the head filled with limpid fluid; itch a great deal, and form yellow or brown crusts; tinea capitis, dry form, in dirty, scrofulous children.

"Tinea capitis, humid eruption on top of the head, filled with pus; drying up into honey-like scabs."—*Dr. Garay.*

"Dry, offensive, scabby, easily bleeding, burning eruption begins on the back of the head and behind the ears; pain and cracks; better from scratching; or humid, offensive eruption, with thick pus, yellow crusts, bleeding and burning."—*Hg.*

"Hair dry, falling off; scalp sore to touch, itching violently, in the evening, when getting warm in bed; dandruff."—*Hg.*

Eyes.—"Sulphur is very useful in many affections of the eyes. It acts most upon the conjunctiva, and is, of course, best indicated when inflammations of this membrane take place in unhealthy subjects. Its chief place is accordingly in strumous ophthalmia. But it also, says Dr. Dudgeon, possesses in acute catarrhal ophthalmia an efficacy almost magical, and has been used with more or less success in inflammation of nearly every texture of the visual organ."—*Hughes.*

"The remedy 'par excellence' for pustular inflammation of the cornea and conjunctiva; and it is more frequently indicated than any other drug. Its sphere of action is very wide; and it is therefore adapted to a great variety of cases, especially if chronic, and occurring in scrofulous children covered with eruption, or when otorrhœa and diseases of the bones complicate the difficulty; also to those cases caused by suppressing an eruption with external applications. The character of the pains may vary; but they are usually *sharp and sticking, as if a needle or splinter were sticking in the eye, or sharp, shooting pain going through the eye back into the head; or smarting, itching, and burning in the eyes; burning as from lime; biting as if salt were in the eye; the photophobia marked, and the lachrymation profuse, though in some cases it may be entirely absent. The secretions vary both in quantity and quality, being often acrid, corrosive, and sometimes tenacious. Agglutination of the lids in the morning. The lids are often swollen, burn and smart as if bathed in some acrid fluid; or there is an itching sensation, compelling the patient to rub them most of the time. All the symptoms are, as a rule, aggravated by bathing the eyes, so that the child can not bear to have any water touch them, and they are worse in the open air.*

"The value of Sulphur in the treatment of ulcers and abscesses of the cornea, is hardly less than in pustular inflammation; its usefulness is not confined to any one species of ulcer, as it has cured not only the superficial, but also the deep, sloughing form,

which tends toward perforation and destruction of the whole cornea. In fact, it should always be thought of in ulceration or abscess of the cornea, with hypopyon, especially of an indolent form, with no photophobia nor vascularity, etc., as it has often produced absorption of the pus. . . .

"Pannus resulting from various causes in strumous subjects, has been frequently cured. In some instances, there has been true pannus crassum, the whole of the cornea presenting the appearance of a piece of fresh raw beef, and yet vision has been restored by Sulphur. . . .

"Sulphur often acts very promptly in clearing up opacities in the vitreous, resulting from choroideal exudations, old hemorrhages, etc."—*A. and N.*

Of chronic arthritic ophthalmia, Sulphur has cured many cases. For amaurosis and amblyopia from suppression of an eruption, Sulphur is the remedy.

"Redness of the eyes during the day; violent itching in the evening; burning heat; shooting beneath the lids, as if filled with sand."—*Hah.*

"Itching and burning of the lids, which are red and swollen in the morning."—*Hah.*

"Profuse lachrymation and burning from acrid, excoriating tears."—*Hah.*

"Pain as from dryness of eyeballs, and sensation as if they rubbed against the lids."—*Hah.* [Scrofulous, filthy people.]

"Dimness of vision and weakness of both eyes, with innumerable confused dark spots floating before eyes."—*Dr. W. Humber.*

"Sensation of a veil before the eyes, and dim vision for near and distant objects."—*Hah.* [Chronic glaucoma.]

"Small dark spots and points before the eyes; flickering before the eyes."—*Hah.*

"Dimness of vision; gas or lamp lights appear to be surrounded with a halo."—*Hempel.* [In cataract or glaucoma.]

"Scrofulous ophthalmia, with chronic inflammation and hypertrophy of the lids, with itching and smarting and purulent exudations."—*Marcy and Hunt.*

Ears.—Excellent for chronic otorrhœa, with acrid discharges.

"Deafness; roaring, itching, and dampness in ear."—*Hempel.*

"Roaring in the ears, in the evening in bed, with rush of blood to the head."—*Hah.*

Sharp, shooting, stitching pains in ears, extending to throat.

Stitching, tearing, pressing pains in the ears from ulceration.

Face.—Hot flushes in the face many times during the day.

"Pale, suffering expression, as after a long illness, with great discomfort."—*Hah.* [Chronic ulcerations; feeling of despair.]

"Glandular swelling on the lower jaw; lips swollen, with scabby ulcers."—*Hah.*

"Lips burn, are very dry and cracked; scabby ulcers upon them."—*Hah.*

Eczema of face, skin dry and cracked; corners of mouth sore.

Mouth.—"Drawing, throbbing or boring toothache; in the open air, or in the slightest draft of air; from cold water, in evening, at night."—*Hah.* [With great dryness of mouth, and thirst.]

"Swelling of the gums, which bleed easily."—*Hah.* [Much accumulation of saliva.]

"Tongue coated white, with red tip and borders; burning and dryness of the tongue."—*Hah.* [Whitish or yellow coating.]

"Mouth very dry; much thirst."—*Hah.* [Gastric affections.]

"Mouth dry, insipid, and sticky in the morning."—*Hah.*

Sour, clammy taste; or bitter, bilious taste, much thirst.

"Dryness of the throat, and a constant desire to swallow saliva in order to moisten the affected parts."—*Kafka.* [Very thirsty.]

Throat.—"Diphtheria; large yellowish deposit all around the posterior wall of the pharynx."—*G.* [Sub-acute, acrid form.]

Insufflation of the Flowers of Sulphur, according to Dr. Sultz, is the specific for malignant diphtheria, and often does good.

"Scraping in throat, hawking and clearing the throat."—*Hah.*

"Stitches in the throat on swallowing, as if inflamed."—*Hah.*

"Violent stitches in the swollen parotid gland for several days."—*Hah.*

"A hard ball seems to rise in the throat, and to close the pharynx, and take away the breath."—*Hah.* [Globus.]

"Sensation as of a hair in the throat."—*Hg.* [Silicea.]

Stomach.—"Ravenous hunger, which obliges him to eat frequently; if he does not he has headache, and is obliged to lie down, from extreme lassitude."—*Hah.* [Chronic dyspepsia.]

"She feels very weak and faint from 11 to 12 a. m.; can not wait for dinner."—*G.* [Very characteristic at the climacteric.]

"He is hungry; but, as soon as he only sees food, his appetite vanishes, and he feels full in the abdomen."—*Hah.*

"Complete loss of appetite; nothing is relished."—*Hah.*

"Sour eructations, after meals or frequently during the day."—*Hah.*

"Feeling in stomach of great fullness, with nausea."—*G.*

"Chronic vomiting is arrested by Sulphur, more high, than by any other drug."—*Baehr.*

"Longing for beer and for alcoholic drinks ; d little ; unclean children, crave everything and eating ; aversion to meat."—*Hg.* [Voracious c not grow.]

"Great sensitiveness of pit of stomach ; full brash."—*Hg.*

"Milk disagrees ; causes sour taste, sour eru Feeling of great weight in stomach, with stit

Abdomen.—The secretion of bile is increased

"Very sore feeling in both hypochondria, wh the touch."—*Hah.*

"Pressure in region of liver ; wind accumulate feeling of weight in abdomen."—*Hah.* [Chronic

"Stitches and pressive pain in the region of th Swelling and hardness of the liver ; indurate

"Tension and pressure in the umbilical regi about the navel, extending to the stomach."—*Ha*

Rumbling and gurgling in abdomen, with r

"Much flatulence ; great emission of flatus, very fetid."—*Hah.*

"Very offensive flatulence for many days, sm eggs."—*Hah.*

"Tension in the abdomen from gas, so that straighten up."—*Hah.*

Much griping and pain in the lower abdomen tines were strung in knots ; diarrhoea, stools gree

"Big belly and emaciated limbs, with childre be washed."—*Hg.*

Abdomen feels raw and sore internally, as wel

"Stitches in region of the spleen ; in left side deep breathing."—*Hah.* [Chronic malarial poise

"Great pressure downward in abdomen, towar

"Painful swelling of the inguinal glands."—*I syphilis.*]

Stool and Anus.—"Chronic constipation ; the dark, and dry ; expelled with great straining, eve tent that blood is discharged ; with itching and anus ; and frequently accompanied with piles.

give Sulphur for one or two weeks, when another remedy must be chosen; if continued, it will spoil the case."—*Hughes*. [Chronic portal congestion.]

Extreme constipation; unsatisfactory and scanty stool, voided every two or four days; after stool, a sensation as if something still remained; stool hard and dry, as if burnt.

"The first effort to stool is very painful, often compelling the patient to desist."—*G*. [Accompanied with hæmorrhoids.]

Constipation from abdominal plethora; stools hard and knotty, and insufficient; especially if accompanied with hæmorrhoids; frequent hot flushes, with burning on the top of the head and soles of the feet.

Alternate diarrhœa and constipation, from enlargement of the mesenteric glands in children, with acrid stools.

"Diarrhœa in the morning, driving the patient out of bed; has hardly time to keep from soiling himself."—*G*.

"Diarrhœa at night with colic, tenesmus, watery, white mucous stools; smell sour; driving out of bed in the morning; painless; fetid, watery, or involuntary; as if the bowels were too weak to retain their contents."—*Hg*.

Thin, watery, acid stools that produce great excoriation.

"Fetid, watery diarrhœa of scrofulous children."—*Raue*.

"Stools so acrid that the child becomes excoriated."—*G*.

"Chronic diarrhœa of mucous and fæcal matter; itching, soreness, and discharge of acrid fluid from the anus; soreness, excoriations, exudations, and itching of anus."—*Raue*. [Ascarides.]

No drug has such acrid, excoriating stools as Sulphur.

"Stools so fetid, their smell follows patient all around."—*D*.

"Pulsation in anus, after stool, that continues all day."—*Raue*.

Cutting pains before and after stool in the anus.

"Chronic diarrhœa in phthisical patients, one dose high."—*F*.

"Whether there be constipation or diarrhœa, the inharmonious muscular action, irritation, and hyperæsthesia are the same."—*D*.

"Before stool, aching in the abdomen; during stool, nausea, headache, painful pressure in the rectum; after stool, sensation of soreness and weakness in the intestines; general lassitude, and great pressure in rectum and anus."—*D*.

"Piles either blind or flowing, with discharges of dark venous blood, and violent bearing-down pains in the small of the back toward the anus."—*Raue*.

"Suppression of piles, with hæmorrhoidal colic, congestions, rigidity of the small of the back, as if bruised."—*Hah*.

Piles with chronic hemorrhages from the bowels, with great itching and sore feeling of the anus; burning and intolerable itching of the anus at night, is a very prominent symptom of Sulphur, the patient can not sleep from the itching.

Moist, blind or bleeding hæmorrhoids, with violent stitching pains in the anus and rectum, and constipation.

"Large hæmorrhoids, violent burning and sticking in anus; pressing in rectum during and after stool; it feels full."—*Hah.*

Excellent remedy to eradicate ascarides, given high.

"Has redness and inflammation of all the orifices, most in the anus."—*Hg.*

Urinary Organs.—Incontinence of urine; urinates very often, with feeling of obstruction in the sphincters, and great pressure on the bladder; urine cloudy, with penetrating odor.

Weak, slow stream of urine, from paresis of sphincter vesicæ.

"The secretion of urine is increased; evacuation frequent at night; the desire comes suddenly, and is imperative; if not gratified, the urine passes involuntarily."—*D.* [Arthritic subjects.]

"At the end, and after the act, cutting in the urethra; also, burning, tearing, and biting in the urethra during the act; often preceded by cutting pains in the hypogastrium."—*D.*

"Constant desire to urinate, with burning in the urethra, and scanty discharge of urine."—*Hah.* [Chronic urethritis.]

"Itching at the mouth of the urethra, as at the commencement of gonorrhœa."—*Hah.* [Of great value in the second stage.]

Chronic gonorrhœa, with shooting, burning pains, or without pain, with discharge of white or yellow acrid mucus.

Inflammation of the urethra, and especially the prepuce, with acrid discharge.

High-colored or turbid, excoriating urine; mucoid urine.

"Painful desire, with discharge of bloody urine, with great effort."—*Hg.*

Sexual Organs, Male.—Increased sexual desire, with stitches in the testicles; chronic prostatitis after gonorrhœa.

"Coldness of the penis; weak sexual desire; impotence."—*Hg.*

"Involuntary discharge of semen; burning in urethra."—*Hg.*

"Testicles relaxed, hanging down; soreness and moisture of scrotum, or offensive sweat of genitals."—*Hg.* [Scrofulous.]

Complete prostration and loss of sexual desire is a marked symptom of Sulphur; given high, it will be found of great value in impotence in either sex. I give the 1000th.

"Inflammation and swelling, with deep rhagades; burning and redness of the prepuce, with phymosis, or paraphymosis with discharge of fetid [acid] pus."—*Hg.* [Chronic ulcerations.]

Sexual Organs, Female.—Menses too early, too profuse, last too long, and are very excoriating; in cachectic subjects.

"Menstrual blood, thick, black, and so acrid as to make the vulva and thighs sore."—*G.* [This is a very marked characteristic of Sulphur.]

"Pain in the abdomen during the menses as if the intestines were strung up in knots by threads; has to take a sitting posture for relief."—*G.* [Before menses apt to have a dry evening cough.]

"Menstruation is likewise delayed or suspended, with great restlessness at night, constipation, etc. I have often found Sulphur successful where menstruation was suppressed, whether by cold during a previous period, or by unknown causes, and where Pulsatilla had been given without effect. Indeed, I think it more frequently indicated in amenorrhœa than Pulsatilla."—*D.* [Debilitated subjects.]

"Chronic hæmorrhages; she seems to get almost well, when it occurs again and again for weeks, with weak, faint spells."—*G.*

"Before the menses headache; during the menses headache; rush of blood to head; nosebleed; with weak, faint spells."—*Hg.*

An excellent remedy at the climacteric, with frequent hot flushes; burning on top of head and soles of the feet, and a feeling of great emptiness, or hungry, gone feeling in the epigastrium.

Sterility, with a weak feeling in the genitals; menses too early and too profuse, lasting too long, with great debility.

"Offensive, corrosive, ichorous leucorrhœa; it burns like salt, making the vulva sore; burning in the vagina, so violently she can hardly sit still."—*G.*

For acrid, corrosive leucorrhœa excoriating the vulva and thighs, no remedy equals Sulphur; a few doses will do wonders.

"Voluptuous itching; scratching relieves, after it burning; sometimes little vesicles."—*Hg.* [Chronic eczema covered with vesicles.]

"After nursing, the nipple chaps and bleeds, with much smarting and burning."—*G.* [The milk excoriates the child.]

"Profuse suppuration of the mammæ, with chilliness in the forepart of the day, and heat in the after-part."—*G.*

Abscesses of the mammæ; the heat of the bed is unbearable; and they are excessively sensitive to cold air; profuse perspiration; hot flushes, and great goneness in the epigastrium.

Respiratory Organs.—"Sneezing and violent coryza, alternately fluent and dry; the dryness predominating, with a troublesome obstruction of the nostrils, relieved temporarily by the occasional discharge of masses of thick mucus."—*D.*

"Rawsness in the fauces, with hoarseness and aphonia, much mucus in the bronchi, with cough. In general, it is dry, occurs at night as well as by day; provoked by irritation in the region of the ensiform cartilage."—*D.*

Catarrhal symptoms get better, then become worse and worse.

"She feels suffocated; wants doors and windows open."—*G.*

"Much rattling of mucus in the lungs; cough worse in the morning; suppressed, choking cough."—*G.* [Like *Pulsatilla*.]

About all kinds of cough yield to Sulphur, but particularly chronic bronchial catarrh, with excessive collection of mucus or muco-purulent matter, with loose rattling cough, and easy expectoration, especially in the day-time. At night the mucus is more tenacious and raised with difficulty; but it becomes easy in the morning. Patient is very sensitive to cold, damp, rainy weather, feels the least change.

"Sulphur is utterly useless in phthisis; and cases where it has done good have been cases of chronic pneumonia. Sulphur is undoubtedly the most important remedy we have in this disease [chronic bronchitis], because it corresponds to the worst and most inveterate cases. Brilliant results are obtained in cases of chronic catarrh of long standing, if the mucus is secreted in large quantities, or is very tenacious, and the symptoms point to a decided thickening of the mucous membrane. An eminent indication for Sulphur is the excessive sensitiveness of the skin, so that every trifling change of temperature causes an exacerbation, and that, even if the patient remains in his room, he is still powerfully affected by changes in the weather. Only this hyperæsthesia must not be caused by pulmonary tuberculosis; the tubercles at least must not be in a state of suppuration. The higher potencies act better than the lower."—*Bachr.*

"If the pneumonia be not complicated with other diseases, then generally there comes a period when the febrile storm subsides, the pains, the dyspnoea, etc., cease. In short, the patient feels himself greatly relieved so soon as the infiltration has become complete. At this period, art can have no other problem than to support nature, while she, for the sake of removing the exudation, increases the activity of the processes of absorption; or, on the other hand, to oppose nature, in case she shows a disposition to get rid of the pneumonic infiltration by

a purulent degeneration. Now, in our view, no remedy yet proved corresponds so well to these indications as Sulphur; none compares with it in point of certainty and celerity of action."—*Dr. Wurmb.*

"Tuberculosis of the lungs; especially indicated as a preventive when there are congestions to head and chest; dry, teasing night cough; breath hot; pain like a rivet through the upper third of the left lung to the scapula; sweats; flashes of heat; burning of the feet; desire to uncover."—*Farrington.*

"Dry cough always caused by rawness in the larynx; dry cough a long time in the evening in bed, before falling asleep, and worse than during the day."—*Hah.*

"In pleurisy it is given (after Aconite) in the acute, plastic form, where it rapidly disperses the effusion."—*Hughes.*

In the acute, plastic form of pleurisy, the tincture of Sulphur has acted in my hands with great celerity; especially if there is a feeling of great weakness in the chest in the evening, or feeling as of a lump of ice in the right chest. In cachectic, stooped people.

"Does not walk erect; stoops or bends over forward in walking or sitting; morning sweat after walking."—*Hg.*

"Dr. Russell considers Sulphur a most important remedy for asthma; and points out the frequent alternation of paroxysms of this disease with fits of gout and attacks of lepra and psoriasis. I know, indeed, of no remedy so frequently beneficial in chronic asthma."—*Hughes.*

"Asthma arising from suppressed eruptions, especially itch; or from suppression of chronic discharges; periodical, spasmodic, stinging in the back; congestion to the chest; comes on in sleep, when turning over in bed, or in the evening."—*Farrington.*

"Like the congestions and orgasms of the blood in the head, are the corresponding affections of the chest. They occur at night, and are aggravated by motion, and accompanied by heat and burning in the chest; the chest is sore externally, with lassitude and great heaviness of the chest."—*D.*

"Weakness of the chest when talking; pressure and oppression of the chest; stitches in the chest reaching to the back, especially when breathing."—*Hah.* [Chronic bronchitis.]

"Spasmodic whooping-cough, two paroxysms in quick succession, with tickling in the larynx, as if caused by down, evening and night; expectoration of dark blood, or of yellow-greenish, purulent, white, watery mucus; sour or putrid saltish taste."—*Hg.*

"Stitches in left chest, when breathing, lasting for days."—*Hah.*

"Sulphur is an admirable remedy when a cough becomes chronic, mucous rales through the chest; the patient loses flesh and appetite; sweats at night, and fears phthisis. Expectoration may be purulent or even bloody. Sulphur 2 c, three or four times a day for a week, will generally restore health."—*Farrington*.

"Sulphur allows a far more extensive application in chronic lung disease; less, perhaps, by its specific relations to cough than by its vaso-motor effect, and by its power of causing a reaction in the metamorphosis. It acts favorably where the course of the disease is slow, without coming to any decision in acute cases, as in catarrh or inflammation (Sulphur effectually develops hepatizations), as well as in chronic diseases of the respiratory organs and of the heart. Sulphur shows in the provings all sorts of coughs and different expectorations; but the constitution of the patient, and the adjectiva of the disease give us hints for its selection. Wherever a dyscrasia is on hand, the physician remembers Sulphur."—*Dr. Hirschel*.

Heart.—"Rush of blood to the heart, with anxious palpitation, especially at night."—*Hah.* [At the climacteric.]

"Palpitation of the heart, worse when going up stairs."—*Hg.*

"Short stitches in præcordial region, with palpitation."—*Hah.*

Palpitation of the heart, with rapid pulse; burning in hands and feet.

"Sensation as if heart were enlarged."—*Hg.* [Rheumatism.]

Chronic rheumatic affections of the heart; of great value.

Neck and Back.—"Hot flushes, with spells of faintness, or passing off with little moisture, and fainting with debility."—*G.* [In women at the climacteric.]

"Cracking in the cervical vertebræ, especially on bending backward; stiffness in the neck or back."—*Hg.* [Lumbago.]

"Violent pain in the back, for several nights, with bruised sensation in the small of the back, on account of which she could not sleep, with great orgasm of blood."—*Hah.*

Rheumatic, gouty affections of the spine, with stiffness of the neck and spine; cracking of the spine on motion.

"Violent bruised sensation in the small of the back; stitches in the small of the back, worse on stooping."—*Hah.*

Spinal curvature, vertebræ softened; in scrofulous children.

Limbs.—"Heat in the soles of the feet, or cold feet with burning soles; wishes to find a cool place for them; puts them out of bed to cool them off constantly.

"Cramps in the calves and soles; particularly at night; standing is the most disagreeable position."—*Hg.*

"On going to sleep, one leg is suddenly drawn up and shot out again, particularly when rousing him."—*Raue.*

"Unsteady gait; tremor of the hands."—*Hg.* [Rheumatism.]

"Arthritic swellings of joints, with cracking on motion."—*Hg.*

Children kick off clothes to cool their feet; marked symptom.

Sulphurous acid vapor baths administered with the head protected, will cure gout and rheumatism when everything else fails.

Elbows and knees more affected by Sulphur; worse when sitting and at night.

Dropsy of the knee-joints; sub-acute and chronic synovitis.

"Drawing pains in the limbs in the evening."—*Hah.*

Pains in limbs are greatly aggravated by heat and at night.

"Sulphur has the highest reputation in rheumatism,—alike in the domestic practice which carries it in the pocket, in its local application in the old school to muscular rheumatism and sciatica, and in the internal use of Homœopathic therapeutics. 'I almost always,' writes Dr. Russell, 'commence the treatment of chronic rheumatism by Sulphur in some form; and sometimes I find it necessary to persevere with this one remedy for months. Dr. Bayes has found it very beneficial in chronic lumbago and sciatica in patients of venous constitutions.'"—*Hughes.*

"In the second stage of articular rheumatism, where deposits are to be removed, and where the feet in particular are affected and very stiff, it is of great service."—*D.*

"The limbs go to sleep easily, sensation of lassitude, weariness, and soreness in the limbs, and bone-pains as if the flesh were off the bones."—*D.* [Chronic venereal rheumatism.]

"Rheumatic pain in left shoulder; pains in arm."—*Hah.*

"Great burning in the hands; tearing, stitching pains in the fingers."—*Hah.*

"Rhagades on the hands, especially between the fingers, on the finger-joints and in the palms."—*Hg.* [Chronic eczema.]

Hangnails and chilblains on the fingers; fingers feel dead.

Cold hands and feet, but not as often as hot hands and feet.

Has cured epilepsy with much formication of the skin.

Skin.—In itch, Sulphur is the specific. The eruption is vesicular or pustular; much worse at night; warmth of bed greatly aggravates the itching. It should be used internally, and the ointment locally. The patient should first take a warm bath thoroughly saturated with common soap. In bad cases, soft soap

will have to be used to remove the superficial and dead cuticle, so as to lay bare the *acarus scabiei* to the destructive action of the Sulphur ointment. After wiping the skin dry, an ointment composed of three parts of *Sulphur*, eight of *lard*, and, in inveterate cases, one of *Carbonate of Potash*, should be well applied to the diseased portions of the skin, and well dried in by the fire, just at bed-time. Wash off on the following morning, and re-apply the same for the two following nights. At the same time, Sulphur should be given internally.

Dr. Ringer says: "The quickest way of curing itch is to immerse the patient, leaving his head free, in a gaseous bath of *Sulphurous acid*, made by burning twelve drachms of Sulphur in a suitable apparatus. While in the bath, the patient's clothes should be baked, so that in half an hour he is cured of his itch, and is made free from risk of re-infection."

For scrofulous people who are frequently troubled with boils, nettle-rash, and all kinds of skin diseases, where every little scratch has a tendency to fester, Sulphur is the remedy.

Excessive sensitiveness of skin; patient powerfully affected by changes of temperature, which aggravate all his symptoms.

"Skin of the hands hard and dry; repeated burning in various parts of the body; after scratching, it hurts as if sore; the spots feel hot after scratching; burning in skin of whole body."—*Hah.*

"Burning in the hands and feet, with weakness of the whole body."—*Hah.*

"Formication and stitch-like prickling in the skin of the whole body, in the evening, after getting warm in bed."—*Hah.*

"Most violent itching over the whole body, especially in the arms and legs, produced by the heat of the bed."—*Hah.*

"The itching is increased by scratching, between the fingers, on the palms of the hands; obliged to rub them, which causes great burning."—*Hah.* [Especially by heat and at night.]

Sulphur cures vesicular, papular, and pustular eruptions, as in eczema, tinea, impetigo, and varicose ulcers that bleed easily.

"Varicose ulcers, which bleed easily, secrete a fetid pus, and burn and itch much."—*G.* [Of long duration.]

"Soreness in the folds of the skin, and all the outlets of the body. Rhagades after washing; hangnails."—*Lippe.*

Child detests water, and can not bear to be washed.

Dry, flabby skin, glandular swellings, indurated or suppurating.

Fever.—The chills and fever are mixed, but the cold predominates. An excellent remedy in chronic cases of ague; spleen enlarged; take all the constitutional symptoms.

"Dry, husky, scaly skin, no sweat from the beginning; pulse frequent; skin, especially of the feet, very hot; no change from day to day in cases of continued fever. In all such cases, Sulphur high, in water every two hours, until sweat, which occurs always in about twelve hours, and is followed by convalescence."
—*Dr. D. R. Gardiner.*

"Chill and fever; no reaction; stupid, sinking."—*Hg.*

"Chilliness constantly creeps from the small of the back up the back, without much subsequent heat or thirst."—*Hah.*

"Great orgasm of blood, and violent burning in the hands. Frequent hot flushes of heat, and sinking sensation in stomach."
—*Hah.*

Of great value in the hot flushes at the climacteric, with hot head, hands, and feet, and a great goneness in the stomach.

"Profuse night sweats, and restless sleep."—*Dr. A. Seydl.*

"Very disgusting sweat in the axillæ."—*Hah.*

Profuse sour-smelling night sweats; or perspires from the least exertion.

Sub-acute and chronic rheumatism, with profuse sweating.

"During the action of Sulphur, all excretory organs are brought into increased activity, discharging carbon and nitrogen from the body."—*Dr. H. N. Martin.*

When carefully selected remedies have failed to produce a favorable effect, especially in acute diseases, one dose of Sulphur high will frequently serve to rouse the reactive power of the system, so that the true remedy will have the desired effect. Sulphur gives satisfaction from the crude drug up to the one thousandth potency; but the first six potencies are the most useful.

In sub-acute and chronic hydrocephalus, in scrofulous children, where effusion has not progressed too far, Sulphur 200th to the 1000th will do more than any known drug. I have cured several cases with the 1000th, after severe spasms had made their appearance, and believe it will often cure this fatal disease.

In malignant sore throat and diphtheria, slight fumigation or the spray has proved of signal service. In rheumatism and gout Sulphurous acid fumes, the mouth being protected with a wet cloth, will relieve when nothing else will.

Aggravation.—From warmth of bed; at night, during rest; from standing; from washing or bathing, or wet poultices; in the open, damp air; changeable weather; from exertion.

Amelioration.—By warm, dry weather; drawing the limbs up; by heat; during the day.

TABACUM.

Tobacco.

Habitat: America, etc. Tincture of the dried leaves of Havana Tobacco. Class IV.

Antidotes.—Nux vom., Strych., Ipec., Ars., Cham., Ign., Puls., Camph., Stimulants.

Through the cerebro-spinal system, Tobacco has eleven special centers of action:

- I. MUCOUS MEMS. (STOM., S. INTESTINES.) *Copious Secretions.*
- II. STOMACH. *Powerful Emetic; Gastritis; Gastrodynia.*
- III. INTESTINES (SMALL). *Violent Tetanic Contractions; Catharsis.*
- IV. CIRCULATION. *Greatly Lowered; Vaso-Motor Paralysis.*
- V. HEART. *Intermittent; Inhibit'y Peripheral Filaments Paral.*
- VI. CEREbro-S. SYSTEM. *Convulsions from Spinal Excitement.*
- VII. CORD (ANTERIOR). *Complete Paralysis of Motor Nerves.*
- VIII. EYES. *Myosis; Amaurosis; Atrophy of the Retina.*
- IX. SEXUAL O. *Venereal Appetite Destroyed; Menses Delayed.*
- X. LUNGS. *Respiration Lessened; Laryngismus.*
- XI. SKIN. Gray. (SUDORIFEROUS GLANDS.) *Copious Perspiration.*

Digestive Organs.—Tobacco, and especially its active principle, Nicotine, has a powerful action upon the digestive organs; even minute doses cause abundant salivation; burning sensation in the tongue and fauces; often the œsophagus felt as if it had been scraped with an iron instrument. Through the vagi, it acts as a most powerful emetic. "The emetic effect of Tobacco is doubtless the product of three factors: its cerebral action, its local irritation of the gastric mucous membrane, and its specific emetic property. The secretions of the intestinal mucous membrane are increased, and the muscular layer is thrown into tetanic contraction, whence the catharsis which follows its administration."—*Bartholow.*

"Nasse found, in his experiments, that injections of Nicotia into the jugular vein produced a tetanic contraction of all the intestines, which was not affected by section of the vagi or by compression of the abdominal aorta; even the splanchnics were un-

able to exercise their inhibitory influence, either because they were paralyzed, or because the spasm was too intense for them."
—Wood.

"The organs composed of unstriped muscle are also affected by Nicotine; for O. Nasse has shown that the whole intestinal canal, but especially the small intestine, and also the uterus, may be thrown into violent contractions by Nicotine, and that these contractions may amount to actual tetanus, with extreme narrowing of the lumen of the intestine. This tetanus of the intestine is due to a peripheral irritation of the intestine itself, most probably of the ganglia in its walls; for, when Nasse excluded the influence of the vagus, the convulsions still occurred; but, when he arrested the circulation, the convulsions ceased; he then injected a fluid charged with Nicotine into the peripheral end of an intestinal artery, and observed convulsions to occur in the part of the intestine thus treated."—Ziemssen.

Tobacco sometimes produces most violent hypercatharsis; and in some cases it has produced bloody stools, and paralysis of the sphincter ani and vesicæ. The mucous membrane of the stomach is marked with patches of ecchymosis and erosion; and blood-stained mucus is found in the intestine, which is in a state of strong contraction after death. The liver, spleen, and kidneys are generally hyperæmic. Nicotia is probably in a great measure eliminated by the kidneys. "Very free urinary discharge, at all events, is produced by Tobacco; and, reasoning by analogy, it may be supposed that this effect is due to the direct action of the Nicotia on the Malpighian tufts and on the tubules of the kidneys."
—Bartholow.

Circulation.—"When Nicotia is added to freshly drawn *blood*, the latter assumes a peculiar dark hue, and the microscope shows that the red corpuscles rapidly disintegrate. In Nicotia-poisoning, the blood is, however, not perceptibly affected.

"The action of the drug upon the *heart* is very complicated, and has not yet been well determined. Upon the cardiac muscle itself, the poison appears to have but very little influence. After death from it, the heart is found pulsating; and Dr. W. T. Benham found, that even the pure Alkaloid, painted over the cut-out heart of a rabbit or injected into its cavities, did not arrest its movements; indeed, on the contrary, the heart, which had ceased action, was stimulated to renewed effort by the application of the drug. Traube found, that, when a minute quantity of Nicotia is injected into the jugular vein of a Curarized animal, artificial res-

piration being maintained, the pulse and arterial pressure at once sink to half their original position, but, in about twenty seconds, rise rapidly, the arterial pressure attaining a maximum of about two and a half times its normal grade, the pulse also exceeding its original rate. This period of increased tension lasts about a minute, after which the arterial pressure commences to fall, as does later the pulse-rate also; and finally *both sink much below their normal position*. After many minutes the pulse generally increases in frequency, often to beyond its original position. If during the second stage the pneumogastrics be cut, the pulse instantly becomes very rapid. It would appear probable that the first lowering of the pulse is due to an action on the inhibitory nerve, as is believed to be the case by Rosenthal; but it appears to me that other investigations are required before this can be considered established. Traube, indeed, states, that, if the pneumogastrics are cut during the second stage, the pulse at once becomes very rapid; but he also affirms that previous division of the par vagum does not prevent the slowing of the pulse. In the experiments of Tugenhold upon frogs, the primary slowing of the heart amounted at first to a diastolic arrest, which was not prevented by previous division of the par vagum, but did not occur when very large doses of Woorara were given. Rosenthal argues from this that Nicotia stimulates the extreme peripheral inhibitory apparatus of the heart; the reason that the Curare prevents the primary retardation of the pulse being the paralysis of the inhibitory peripheral filaments which it is believed to cause. It is clear, however, that the results obtained by Rosenthal are difficult to reconcile with the effects of section of the par vagum already quoted by Traube. The method in which Nicotia primarily lessens the pulse-rate, must therefore be considered as still unsettled. The later increase of the pulse-rate appears to be due to paralysis of the peripheral inhibitory apparatus; since Rosenthal found, that, in this stage of the poisoning, the strongest galvanic currents applied to the pneumogastrics failed to influence the cardiac pulsations. The causes of the rise and fall of the arterial blood pressure have not been determined; but they are probably connected with the at present undetermined *vaso-motor action* of the drug. Rosenthal believes that the dilated vessels which various observers have noted in the ear of the poisoned rabbit prove that the Alkaloid finally paralyzes the vaso-motor system."—Wood.

Constant smokers often have functional disturbances of cardiac action, with palpitations and intermittent slow pulse that give rise to much suffering.

Cerebro-Spinal System.—"Upon the *cerebrum*, Nicotia probably exerts very little direct influence. The convulsions are certainly of spinal or peripheral origin; since they occur, according to the experiments of Krocke, in frogs whose cerebrum has been extirpated. That they are not peripheral, is proven by the experiments of Vulpian, who found that cutting off all the arterial communication between the hind legs of the frog and its trunk did not affect the development of the convulsions, when the animal was poisoned with Nicotia. This has been confirmed by Krocke, who also found, that, if the nerve-trunk of a limb be divided, the convulsions cease in that limb. The convulsions are, therefore, spinal, and the first stage of Nicotia-poisoning is one of spinal excitement. The question here naturally arises, Is the paralysis of the second stage due to spinal depression? There is not yet sufficient evidence to warrant a positive decision as to how far the cord is involved in the paresis; but Krocke is probably correct in believing that it is at least to some degree affected; since he found that tying the arteries of a limb so as to preclude the poison from reaching the nerves did not prevent the limb from lying limp and powerless during the paralytic stage. The action of the poison upon the peripheral *nerves* has been definitely settled by the experiments of Vulpian, Rosenthal, and Krocke, all of whom have found that the functional activity of the motor or efferent nerves is more or less completely abolished by the poison. By tying the artery low down in one leg of a frog, so as to protect the peripheral endings, applying the galvanic currents some distance above this point, and comparing the results with those obtained by galvanizing unprotected nerves, Krocke determined that the peripheral endings were paralyzed sooner than the nerve-trunks, although the trunks themselves were finally paralyzed. The peripheral nerve endings appear to be at first excited, as Vulpian and Krocke have found that muscular tremblings are not prevented by the section of the supplying nerve, and that they even occur in the Curarized frog. These fibrillary contractions also occurred when the Alkaloid was injected into a leg whose connections with the trunk had been cut off by a tight general ligature. According to Vulpian and Rosenthal, the sensory or afferent nerves retain their activity to the last. Upon the voluntary *muscles*, all observers are in accord in asserting that Nicotia exerts no influence."—*Dr. H. C. Wood*.

Eye.—Tobacco produces marked contraction of the pupil. "If, as is asserted by Krocke, the Alkaloid contracts the pupils of

cut-out eyes, it is evident that the action is a local one. Hirschman has found that galvanization of the divided cervical sympathetic fails to cause dilatation of the pupil. Krockner, in later experiments, has confirmed this in regard to large doses of the drug, but has found that myosis occurs long before the sympathetic is able to dilate the pupil. This fact renders it probable that the Alkaloid paralyzes the peripheral endings of the sympathetic; but it is barely possible that it induces a spasm of the fibers supplied by the oculo-motor so powerful that the sympathetic is unable to overcome it. Be this as it may, it is very probable that the sympathetic paralysis, if it exists, is associated with oculo-motor spasm; but at present we have not sufficient evidence to warrant any definite conclusion."—Wood.

In many cases of chronic Tobacco-poisoning, *amaurosis* from atrophy of the retina has been produced. Hutchinson has proved statistically, that, out of thirty-seven cases of amaurosis resulting from white atrophy of the optic nerve, thirty-one occurred in immoderate smokers. And Sichel declares that there are few persons who have smoked during a long period more than five drachms of Tobacco per diem, without having their vision, and frequently their memory, enfeebled.

Sexual Organs.—The excessive use of Tobacco greatly lessens the *venereal appetite*. Dr. Wright "found, that from two to five grains of the essential oil of Tobacco, given to dogs two or three times a day, induced gradual and complete marasmus; a peculiar dragging action of the hind legs, and loss of venereal power; softening and shriveling of the testicles, shedding of the hair, and before death, sloughing of the eyelids and blindness."—Stille.

The menstrual function is delayed and increased, showing that the ovaries are also affected by Tobacco.

Lungs.—Through the pneumogastrics Nicotia acts powerfully upon the respiratory organs. "It uniformly renders the respiration slower, after having in some instances increased its frequency. But the larger the dose, the more speedily does the former effect ensue. The breathing has generally a very characteristic peculiarity which consists in a hissing sound, and which is probably owing to a spasmodic contraction of the larynx and air-tubes. . . . According to Dr. Ruef, chronic pulmonary affections are infrequent among Tobacco-workers; and he even affirms that some among them who enter the factory with emaciation, hæmoptysis, and cough, have there got rid of their pulmonic symptoms; and consumption is unusual among them."—Stille.

In *nervous asthma*, if the smoke be swallowed or drawn into the lungs, the attack will often be arrested. Tobacco has proved of signal service in *spasm of the glottis*, *asphyxia*, and *spasmodic croup*.

Skin.—Through its action upon the peripheral nerve endings supplied to the skin, the sudoriferous glands pour out copious perspiration. This copious perspiration causes lowering of the superficial temperature and probably depends upon and is in consequence of vaso-motor paralysis. It produces a dull, grayish tinge of the skin, like that of anæmia.

Smoking.—Nicotine-poisoning chiefly arises from smoking Tobacco, the smoke containing the Nicotine. A great deal of it accumulates in the lower parts of pipes; and the remains of cigars are decidedly much more impregnated with Nicotine than the parts first smoked. Large quantities accumulate on the sides of the mouth-pieces of tobacco-pipes and in the ends of cigars. Tobacco-juice from pipes has been used to produce abortion; and it destroyed both mother and child. Nicotine is one of the most potent of poisons; and its fatal effects are produced in less time than those of any other poison, except Prussic acid. It will produce death in thirty seconds; but usually it takes from three to five minutes. Dr. W. A. Hammond has made the influence of *smoking* upon the system the subject of accurate investigation, and obtained the following results: "It does not affect the secretion of carbonic acid through the lungs; it lessens the amount of aqueous vapor given off in respiration; diminishes the amount of fæces, lessens the quantity of urine, and the amount of urea and chlorine; increases the amount of free acid, uric acid, phosphoric and sulphuric acids, eliminated through the kidneys. Hence, it would seem to be probable that Tobacco does not lessen the consumption of fat, but that it does retard the metamorphosis of the nitrogenous tissues. The increase of Phosphorus and Sulphur in the urine is probably derived from the nervous system, which Tobacco so sensibly affects. Some of the morbid effects of smoking Tobacco, when carried to excess, have been well depicted by Dr. Laycock. He describes an inflammatory, but what is probably rather a congested, state of the mouth and fauces, in which sometimes the buccal epithelium exfoliates. If the throat be examined, it will appear slightly swollen, with congested veins meandering over the surface, and here and there a streak of mucus. The posterior nares are probably in the same condition, and the irritation is transmitted to the eye. Undoubtedly this

organ is frequently injected and watery in smokers, and often presents a spasmodic twitching of the orbicularis muscle. Mr. Lizars enumerates ulceration of the lips, tongue, gums, mucous membrane of the mouth, tonsils, velum, and pharynx, among the effects of this habit. Dyspepsia is occasionally met with as a consequence of excessive smoking, yet rarely in the aggravated form so common among chewers of the weed. Loss of appetite, constipation, hæmorrhoids, acne, and gum-boils are ascribed to the same cause. It is more apt even than 'chewing' to render the voice hoarse, deep-toned, or smothered, and to prevent clear articulation, by causing an excessive secretion of mucus in the fauces. Smoking Tobacco also weakens the nervous system, *inducing palpitation of the heart*, tremulousness of the limbs, neuralgia, and morbid susceptibility, with diminished tone and power. These symptoms occasionally assume the aggravated form of angina pectoris. When too much indulged in, or when the nervous system is rendered impressionable by ill-health, losses of blood, or any other fluid, or by over-excitement, smoking aggravates the already existing symptoms, and may induce hypochondriasis. One of its most usual effects is to produce an *irregular and intermittent* pulse. Mr. Lizars and others allege that it destroys the virile powers and sexual desire. Smoking cigars is vastly more injurious than smoking a pipe, because the preparation of Tobacco for the latter purpose destroys as much as two-thirds of its Nicotia, while the former loses but little of its active principle in the manufacture. But the fact is overlooked, in this estimate, that the Tobacco prepared for smoking in pipes originally contains a much larger proportion of Nicotia than that of which the best cigars are made."—*Stille*.

Tobacco Chewing.—Moderate chewing of Tobacco is not so mischievous as smoking, however repugnant it may be to persons of refinement and delicacy. "It is confidently believed by many to promote digestion; and they find that a small piece taken after meals protects them from the unpleasant sensations in the stomach which, without this aid, they are apt to suffer. Very possibly the saliva, which is secreted more abundantly under this stimulus, may account for the alleged salutary effect. But, if so large a portion of the weed is taken as to induce frequent and excessive spitting, the very reverse effect must ensue; the stomach is robbed of its natural excitant and a chief agent in digestion, the whole body is enfeebled by the waste of its fluids, and the nervous system sinks into debility under the constantly renewed alterna-

tion of stimulus and depression. And, if the saliva is swallowed instead of being rejected, whatever is gained in cleanliness is lost in health; for the stomach and entire system can not long withstand the impression of such doses of virulent poison. In general, the excessive use of Tobacco becomes mischievous both by the waste it causes of a precious animal fluid and by its direct influence upon the nervous and digestive apparatus. In both respects, chewing Tobacco is infinitely the most hurtful mode of using it.

"Dr. Shipman gives a description of nine cases. The morbid symptoms were manifested chiefly by the nervous and digestive organs. The operations of the mind were neither so vigorous nor so clear as in the natural state; low spirits, irresolution, hypochondria, and gloomy anticipations beset the patients at all times, but were least tolerable during the process of digestion; nightmare, with an unusual exaggeration of its horrors, deprived them of repose at night, and by day a fear of sudden death assailed them. The first slumber, instead of being the soundest and calmest of the night, was often postponed for several hours, and was even then unrefreshing. A singular sensation experienced by most of the patients immediately after going to bed is described as a 'shock' at the epigastrium, such as a rush of blood to the part might be supposed to produce; or, as one person described it, like a discharge of electricity. This symptom is regarded by Dr. S. as pathognomonic. When the stomach was empty, the patient experienced an intolerable sense of sinking at the epigastrium. Along with these symptoms, palpitation of the heart, vertigo, and rushing of the blood to the head were commonly observed. Nearly all the patients were emaciated and pale, and victims to the well-known symptoms of dyspepsia; acidity, cardialgia, gastrodynia, acid or watery eructations, and constipation. It is very remarkable that this frightful array of symptoms should gradually yield, and in a short time be entirely dispelled, after the habit of using Tobacco was abandoned. Several of the wan and wasted patients acquired a ruddy complexion and became quite stout."—*Stille*.

Therapeutic Individuality.

Head, Mind, and Nervous System.—Adapted to diseases of the nervous system, where there is prominent irritation of the functions of the vagi, sick-headache, that comes on early in the morning, and by noon is intolerable, with deathly nausea and

violent vomiting, greatly aggravated by noise and light, with dreadful faint feeling at the stomach.

"Excessive vertigo; can not rise up it is so great; with face deathly pale. Head is so heavy it can hardly be held up."—*Hah.*

"Headache with severe vertigo, worse indoors, better in open air."—*Hah.*

Excessive depression of the mind, with indigestion and frequent palpitation of the heart; an intermittent pulse, with great despondency.

Face pale, collapsed, covered with cold sweat, cholera morbus.

Eyes.—It has been found useful in asthenopia, strabismus, and especially in white atrophy of the retina with amaurosis.

Digestive Organs.—"The mouth is full of white, tenacious mucus, which must be frequently expectorated."—*Hah.* [Salivation.]

Great increase of saliva; spits much; salivation very characteristic.

"Violent tearing pains in the facial bones and teeth."—*Hah.*

"Great thirst, especially at night."—*S. Swan.* [Gastritis.]

Incessant nausea and frequent vomiting of acid substances.

"Feels exactly as if seasick; has the same vertigo, with nausea coming in paroxysms; during which the body is covered with a cold sweat."—*Dr. Teste.*

"During pregnancy an insupportable pruritus over the whole body, with pyrosis, and other gastric symptoms."—*Dr. Gross.*

Great nausea and excessive and violent vomiting, with a sinking feeling in the epigastrium; from portal congestion.

Sensation of weakness in epigastrium, is a marked symptom.

Complete loss of appetite; and cardialgia with frequent fluttering sensation in the epigastrium; or shocks in the stomach, at night while sleeping, so great that the patient is awakened with the shocks.

"Spasmodic pressure in the hypogastrium."—*Hg.* [Cardialgia.]

"Violent contractions in the abdominal muscles; navel retracted, with gurgling in bowels and shifting flatulence."—*Hg.*

Strangulated hernia; ileus; complete marasmus; paralysis and sudden hyperæmia of the brain, with violent nausea, vomiting and prostration; vomiting of fecal matter.

"Violent pain in small of the back during soft stool; with tenesmus and burning in the anus."—*Jahr.* [Dysentery.]

"Sudden papæscant, yellow, green or grayish slimy stools, with tenesmus."—*Hg.*

Green, slimy stools; nausea, vomiting and great prostration, in children.

"Cholera; body cold, face distorted, spasms, vomiting, or no stool or vomiting, but complete collapse."—*Hg.* [All the sphincters paralyzed.]

Urinary Organs.—Renal colic; violent pains along ureters; cold sweat; deathly nausea; increased discharge of urine; or scanty, high-colored urine.

Paralysis of sphincter vesicæ, and constant dribbling of urine.

Respiratory Organs.—"Continual paroxysms of sneezing for weeks."—*Dr. L. Gross.* [Catarrhal asthma affecting nostrils.]

Paroxysms of suffocation; dyspnoea; hurried, anxious respiration, and spasmodic asthma are often relieved by smoking, drawing the smoke into the lungs. Bartholow says, a snuff-plaster to the neck will quickly relieve *laryngismus stridulus*. (Practical hint.)

Heart.—Functional diseases of the heart, with intermittent pulse, and frequent palpitation, often associated with dyspepsia, with a sinking, gone feeling in the stomach.

"Palpitation in attacks at night; tight across the chest, with angina pectoris."—*Hg.*

"Sudden præcordial anguish, with violent beating of the heart and carotids."—*Hg.*

Pulse intermittent, and exceedingly slow, or small and feeble. Great hypochondriasis, with functional heart disease.

Skin.—Copious perspiration; icy coldness of the whole body. Cold, clammy sweat, in choleraic diseases; much prostration. "Violent itching of the whole surface."—*Swan.*

Dark, walnut-looking skin, and sometimes jaundice.

Cold, chilly feeling, with cold sweat; limbs icy cold.

Great weakness and debility; skin dark walnut color.

Extremities.—Spasmodic contraction of the arms, hands, and legs.

Hands icy cold; body warm; cramps in the fingers while washing.

Great trembling of hands and legs; can not walk; limbs icy cold.

In General.—"Spasmodic contractions of muscles; spasms and general insensibility."—*Hg.*

Complete prostration of the whole muscular system.

Tetanus. Nicotine is one of our most effective remedies; and it has often acted as a complete antidote to Strychnia-poisoning, given in the 10th to the 100th dilution. In poisoning from mushrooms, Tobacco is said to be a certain antidote.

Locally, a decoction of Tobacco has long been in use for the destruction of parasites; but it should be used with care, or fatal consequences from poisoning with Nicotine may ensue.

Aggravation.—Night; in a warm room, and motion.

Amelioration.—In fresh, cold air.

TANACETUM VULGARE.

Tansy.

Habitat: Europe, etc. Tincture of the fresh plant, Class III.

Through the cerebro-spinal system, Tansy has four special centers of action:

- I. CEREBRO-SPINAL SYSTEM. *Delirium; Coma; Convulsions.*
- II. OVARIO-UTERINE ORGANS. *Abortifacient; Hemorrhages.*
- III. DIGESTIVE ORGANS. *Nausea; Vomiting; Diarrhœa.*
- IV. URINARY ORGANS. *Copious Urination.*

Cerebro-Spinal System.—Upon this system, Tansy acts as a narcotic poison, producing delirium, coma, violent tonic and clonic spasms and death. It has a marked action on the motor portion of the spinal cord, as shown by the violent spasms. The Oil acts as a fatal poison, producing unconsciousness, flushed cheeks, dilated pupils, hurried, stertorous respiration, strong spasms, a full, frequent pulse, repeated convulsions, and then a failing pulse and death.

Ovario-Uterine Organs.—It causes profuse menstruation, uterine hemorrhage, with labor-pains and abortion.

Digestive Organs.—Small doses act as a gentle stimulant to the digestive organs; but in large doses it produces nausea, vomiting, and diarrhœa, with copious urination.

Therapeutic Individuality.

This remedy is often useful in suppression of the menses, dysmenorrhœa, menorrhagia, and scanty menstruation. Used as a tea.

Worms in children, with spasms; pupils widely dilated.

The greatest use of Tansy is found in poisoning from Ivy or *Sumach*. Used externally in decoction and as a tea internally, it will be found an *absolute specific*. No known remedy can take its place here.

TARANTULA HISPANA.

A Venomous Tropical Spider.

Habitat: Italy, Spain, America, etc. Tincture of the living spider, Class III. Triturations.

Through the cerebro-spinal nervous system, Tarantula has four special centers of action:

- I. CEREBRO-S. SYSTEM. *Chorea; Hyperæsthesia.*
- II. CIRCULATION. (HEART, ARTERIES.) *Contraction of Vessels.*
- III. GENERATIVE ORGANS. (ESPECIALLY OF WOMEN.) *Neuralgia.*
- IV. BLOOD. (*T. Cubensis.*) *Toxæmia; Anthrax; Gangrene.*

Cerebro-Spinal Nervous System.—Tarantula has a most striking and peculiar action upon this system, especially upon the spinal cord, affecting the motor portion of the cord in a way different from any other known remedy, producing the most severe and terrible *choreic manifestations* that could be imagined; and it has often cured chorea in its worst form. Tarantula also affects the sentient portion of the spine, as indicated by *excessive hyperæsthesia* and all the symptoms of excessive spinal irritation. Through these spinal nerves, Tarantula acts upon the heart and generative organs of women; but just how, is not fully known. Of its action on the heart, Dr. Farrington says: "Besides causing cramps of the circular fibers of the heart, like Cactus, Iodine, Kali carbonicum, Lachesis, Digitalis, etc., it differs from them in producing contractions of the spiral fibers. Herein it stands almost alone. These spiral fibers end in the columnæ carneæ, and hence influence the papillary muscles, thus causing various murmurs. The symptoms of the aorta—distention, sensation as if

torn or squeezed or stretched or bursting—remind one of aortitis."

"The *Tarantula Cubensis* (Arana Peluda, hairy spider) belongs to the same family, genus, and species, as the *Tarantula Hispana*. Although apparently alike, these spiders differ widely in their pathogenetic and therapeutical effects. The *Tarantula Hispana*, native of South America, and introduced into our *Materia Medica* by the well-known Dr. Nunez, of Madrid, Spain, is a nervous remedy, acting deeply and powerfully on the cérébro-spinal system; and many cases of chorea, hysteria, etc., have been cured by this precious agent.

"The *Tarantula Cubensis*, on the other hand, seems to be a toxæmic remedy, acting directly on the blood, and is in this way an analogue of *Crotalus*, *Apis*, *Arsenicum*, etc.

"The bite of this spider, if instantly attended to, is easily deprived of malignant effects by the local application of a lotion made with water and the tincture of *Ledum palustre*. But, if the virus is already absorbed and carried into the circulation, it develops the following symptoms: The bite itself is painless, so much so that persons bitten in the night are not sensible of it until the next day, when they discover an inflamed pimple surrounded by a scarlet areola; from the pimple toward some other point in the body, a red, erysipelatous line is seen, marking the course followed by the spider over the skin after biting,—so corrosive is the nature of this virus. The pimple swells, gradually increasing in size; the erysipelatous inflamed areola spreads wider and wider; chills, followed by intense burning fever, generally supervene on the second or third day, accompanied by great thirst, anxiety, restlessness, headache, delirium, copious perspiration, and retention of urine. The pimple, in the meantime, grows larger and becomes a hard, large, and exceedingly painful abscess, ending by mortification of the integuments over it, and having several small openings discharging a thick sanious matter containing pieces of mortified cellular tissue, fasciæ and tendons; the openings, by growing, run into each other, forming large cavities. At this period the fever takes the intermittent type, with evening paroxysms, accompanied by diarrhœa and great prostration.

"This does not take place in every case of the spider's bite, for much depends on the constitution of the patient and the treatment adopted; but still, I have known of two cases in delicate children where the bite proved fatal. The majority of cases recover after a period of from three to six weeks. I once attended a black man of about thirty years of age bitten by this spider; I was called during the second stage; he then had diarrhœa, inter-

mittent fever, and prostration; the opening left by the emptying of the abscess in the left gluteal region was large enough to admit my fist. He recovered in two weeks under *Arsenicum*.

"With these facts before me, or rather, in view of these *provings*, I decided to try the remedy in my practice. By introducing into a glass jar full of pure Alcohol one of these spiders alive, I prepared the mother tincture, according to Dr. Hering's method. As by the effects of anger the spider threw off the poison, the Alcohol changed from a colorless liquid to light yellow. From this tincture I prepared the 6th decimal dilution, and this is the preparation I have used where indicated. From the cases in my experience, I will cite the following in proof of the never-failing law, *Similia similibus curantur*:

"Don M. B., æt. 72, good constitution, called me to treat him for an abscess in the back of his neck, whose burning, excruciating pain had completely banished sleep for six or seven nights.

"There was fever, with great thirst and prostration. On examination, I found it to be a regular *anthrax*, with all the accompanying train of symptoms. Gave *Tarantula Cub.*, one dose every two hours; after the second dose, the pain was greatly relieved, and that very night the patient was able to sleep through the whole night. Under the use of this remedy, the patient recovered without using any other, except *Silicea* to aid cicatrization.

"Dona A. R., æt. 51, past the climacteric, thin, spare body, delicate constitution, had an anthrax in the interscapular region, with severe burning pain; unable to sleep from the excessive pain, *Tarantula Cub.* in a few days made a complete cure.

"I. L., colored man, æt. 26, had a large, hard abscess in the right thigh, exceedingly painful and inflamed, no fever, the glands in the groin swollen, indurated, and painful. Gave *Tarantula Cub.*, every three hours. After the second dose, the pain was completely relieved, and six days after the abscess and swollen glands had disappeared by resolution.

"M. C., a little girl of nine years, was taken ill with tonsillitis. Besides several local applications and domestic remedies, had taken *Merc. biniod.*, *Bell.*, *Acon.* and other Homœopathic remedies prescribed by an amateur. When called to see her, I found high fever, delirium, red face, and both tonsils so swollen that suffocation was feared. A few doses of *Tarantula Cub.* dispersed the swelling and accompanying symptoms in a few hours.

"Dona F. L. de B., æt. 84, delicate constitution, had a large anthrax in the back of the neck; had been treated for two weeks by three physicians of the old school with local applications, first

emollient and then caustic. At last the knife was resorted to with stimulants internally, and Hydrate of Chloral and Morphine to relieve the burning, agonizing pain,—all to no effect, for the patient grew worse daily. Upon examination, I discovered that the whole of the muscular and cellular tissues were destroyed from the neck to the waist, and from shoulder to shoulder, leaving a cavity about six inches long and four wide, at the bottom of which several of the dorsal vertebræ were plainly visible. There was also infiltration of the surrounding tissues, and the patient had quotidian fever and diarrhœa. After the fourth dose of *Tarantula Cub.* the pain was completely relieved. On the third day the line of demarkation was formed; and two days afterward the surrounding mortified tissues came off. With the continuance of this remedy and an occasional dose of *Silicea*, the patient was entirely cured in seven weeks from my first call.

"These are only a few of the many cases in which *Tarantula Cub.* has given complete satisfaction in my practice. I have used it with success in syphilitic buboes, painful boils, and all kinds of abscesses where pain or inflammation predominates. Its power to relieve pain in these cases is wonderful, acting, we might say, as an anodyne. The observations of one man, however, can not establish the reputation of a remedy; and for this reason I bring these facts and confirmatory clinical cases before the profession for investigation. Perhaps by instituting regular provings with this substance, new symptoms might be developed, and the real value of the remedy definitely ascertained."—*Read before the Homœopathic Medical Society of N. Y. County, by J. J. Navarro.*

Therapeutic Individuality.

"Especially indicated in choreiform affections, where the right arm and left leg are principally affected; or the whole body."—*Nunez.* [In acute and sub-acute cases.]

"Constant movement of the legs, arms, and trunk, with inability to do anything; can not even keep quiet in one place; preceded by malaise and oppression."—*Dr. Nunez.* [Spinal irritation.]

Trembling of the body; all the limbs are agitated; convulsive hysteria and chorea. (With excessive hyperæsthesia.)

"Excessive hyperæsthesia; the least excitement irritates, followed by ennui and sadness. Slight touch along the spine provoked spasmodic pains in the chest, and indescribable distress in the cardiac region; at times the heart feels as if twisted over; intense headache, as though thousands of needles were pricking in

the brain; the body burned all over. Headache was better by *rubbing the head against the pillow*; she trembled so she could hardly talk.

"In regard to the relief the patient experienced from rubbing the head against the pillow, we see here expressed one of the most characteristic indications for Tarantula. The termini of the nerves become so irritated that some kind of friction is required, in order to obtain relief. All through the proving we find this irritation, varying with the part affected; must move hands or legs; must rub head against something; must roll something between the fingers; must put fingers in the mouth, etc."—*Farrington*.

Nervous diseases where the functions of the vagi are more or less disturbed.

Neuralgia of the uterus, with many nervous symptoms, accompanied with sadness and despair.

Extreme sexual excitement; menses too early and profuse; pains and spasms of the uterus; pruritus vulvæ; leucorrhœa.

"*Insanity and Spinal Meningitis*. Sudden fox-like and destructive efforts, requiring the utmost vigilance to prevent damage; followed by laughter and apologies."—*G. F. Foote, M. D.*

Nervous excitement; hysteria and mania; restlessness and dreaming.

Skin.—Malignant ulcers, and unhealthy skin in general.

"Itching; burning; formication; ecchymosed spots; painless, vesicular, and especially pustular eruptions."—*H. C. Jessen*.

Malignant ulcers; anthrax and gangrene (*T. Cubensis*).

Digestive Organs.—"Mouth dry; gums bleed; tongue ulcerated; throat sore, swollen, inflamed, constricted; great thirst; flat, bad taste; appetite lost, with anguish, nausea and vomiting.

"Sharp pain in the umbilical region; violent burning in the abdomen and rectum; stool profuse, dark, fetid, bloody, with violent urging; constipation."—*Dr. Jessen*. [Toxæmic fevers.]

"Urine hot, thick, much sediment; difficult micturition; incontinence, and pains in kidneys."—*Dr. Jessen*. [Septic diseases.]

In toxæmic fevers, of a typhoid or intermittent form, there is much chilliness, or burning heat, the chilliness predominating.

"Weakness of all the limbs; rheumatic pains; restlessness; formication; paralysis; spasmodic paralytic affections; neuralgia; rheumatisms, etc."—*Dr. Jessen*.

Aggravation.—Night and morning.

Amelioration.—In open air and during motion.

TEREBINTHINA.

Turpentine.

Habitat: Europe, America, etc. Alcoholic solution of the Oil; one of Oil, and two of alcohol.

Though the cerebro-spinal system, Turpentine has eight special centers of action:

- I. KIDNEYS. *Congestion; Inflam.; Hæmaturia; Albuminuria.*
- II. DIGESTIVE O. *Mucous Enteritis; Tympanitis; Hemorrhages.*
- III. AIR-PASSAGES. *Bronchitis; Mucorrhœa.*
- IV. SKIN. *Vesicular Erysipelas.*
- V. CEREBRO-S. S. *Toxæmic Fever; Insensibility; Prostration.*
- VI. VASO-MOTOR SYSTEM. *Stimulated; Large Doses Paralyze.*
- VII. HEART. *Blood-Pressure Lessened.*
- VIII. BLOOD. *Septic; Copious Hemorrhages.*

Urinary Organs.—"By far the most important sphere of the action of Terebinthina lies in the region of the kidneys, and in the urinary mucous membrane generally. It is an irritant throughout the tract. Acting on the kidneys in very small doses, it is diuretic; in larger quantities, it sets up congestion going on to inflammation of these organs, with hæmaturia, albuminuria, and sometimes complete suppression of urine. It inflames also the bladder and urethra, and often causes strangury. All this is so well known that any application of Turpentine to urinary inflammations must be admitted to be homœopathic. So Pereira says: 'In blennorrhœa of the urinary apparatus, it seems to set up a new kind of irritation in the affected membrane, which supersedes the previously existing disease.' It is, indeed, our chief remedy in hyperæmia of the urinary organs. In simple renal congestion, which is almost as common as the corresponding affection of the liver, it is well-nigh infallible. When this condition goes on to complete suppression of urine, Turpentine will often restore the secretion. When it manifests itself by hæmaturia, you will generally find Turpentine the best styptic."—*Hughes.*

Turpentine produces active congestion of the capillaries of the Malpighian tufts, and the glomeruli, with exudation of albumen,

destroying the glandular surface of the tubuli uriniferi. The nerves are paralyzed, producing passive hemorrhage, uræmia, and convulsions. In albuminuria where Turpentine is indicated, there will be found more or less blood-casts of the renal tubes mixed with the urine. In animals, after death from poisoning with Terebinth, there is inflammation and congestion of the cortical substance of the kidneys; they are enlarged, softened, and of a dark red color.

Digestive Organs.—A few drops produce a sense of heat in the stomach; large doses, intense burning pain, nausea, intestinal irritation, severe burning in the abdomen, with stools of mucus and blood, accompanied with violent tenesmus. In some cases, there is no purging. The abdomen becomes greatly tympanitic, with much prostration, and many cerebral symptoms.

Air-Passages.—The secretion of the bronchial mucous membrane, is greatly increased, with spasmodic, convulsive cough. "That Turpentine is exhaled by the breath, is evident to the senses; and it is allowed by all, that, where the bronchial mucous membrane is the seat of chronic catarrh, the medicine, in passing through it, exercises a modifying influence for the better. But it is not clearly recognized that this influence is of the same character as that which we have seen in the urinary sphere. Trousseau and Pidoux, however, make this plain. 'The mucous membranes,' they say of those under its influence, 'are dry, as if in the first stage of catarrh; they are injected, turgid, and hot. There is frequently herpes labialis, heavy sub-sternal pain, and tickling in the trachea, as at the commencement of bronchitis; the subjects have been seen to bring up phlegm streaked with blood.'—*Hughes*.

Skin.—Turpentine causes an eruption of the skin similar to that of scarlatina; and, when applied locally, it causes heat, redness, vesicular inflammation, and sometimes intractable ulcerations. It is eliminated by the skin.

Cerebro-Spinal System.—In large doses of one or two ounces, it produces thirst and vomiting, "and a febrile state is induced; the muscular strength is diminished, the power of co-ordination is impaired; exhilaration of mind, incoherence of ideas, and rambling insensibility follow. In toxic doses, there are complete muscular relaxation and profound insensibility, with abolition of all reflex movements; the face is flushed or cyanosed, the pupils usually dilated, the breathing labored and stertorous. The kid-

neys suffer extreme irritation, and the skin exhales a Turpentine odor."—*Bartholow*.

It acts upon the sentient nervous system, especially that of the lower extremities, producing excessive hyperæsthesia along the track of the great nerves.

Vaso-Motor Nervous System.—Through the cerebral nerve centers, Turpentine greatly stimulates the circulation. "As regards its action on the organs of circulation, the author's experiments show that Turpentine stimulates the vaso-motor nervous system, in moderate doses. A large quantity quickly exhausts the irritability of the sympathetic ganglia, the action of the heart becomes weak, and the arterial tension falls; the respiratory movements are at first stimulated, but afterward become shallow, and carbonic acid poisoning supervenes. The brains of animals killed by Turpentine smell strongly of it; and hence it may be concluded that it has a direct action on the cells of the cerebral lobes."—*Bartholow*.

Blood.—The blood becomes dark for want of oxygen. In toxic doses in rabbits, Dr. Leon Crucis found that it increases the coagulability of the blood and gives rise to numerous minute hepatic and pulmonic thrombi. "We have certainly seen it causing hæmaturia and hæmoptysis, and Stille says that females inhaling the Oil suffer from menorrhagia and dysmenorrhœa. To such bleedings, then, it is a *simile*; but I can not yet affirm that this is its *modus operandi* when curative of the hemorrhage of gastric and intestinal ulceration, or purpura, as it is said to be."—*Hughes*.

Therapeutic Individuality.

Urinary Organs.—Turpentine's greatest field of usefulness is found in nephritis, cystitis, urethritis, strangury, tenesmus of the bladder, diabetes, and especially albuminuria, or Bright's disease. In the latter, it is more especially called for in the sub-acute and chronic form, where, with the albumen, blood is found in the urine. If there is no blood in the urine, Terebinth will fail. Added to this, the eyelids are swollen, with double vision, vertigo, great œdema of the feet, and prostration. The disease must be idiopathic, that is, not caused or kept up by organic heart disease.

Congestion and inflammation of urinary organs, with scanty, high-colored, and often bloody, urine. Copious hemorrhages.

Burning, drawing pains in the kidneys, with bloody urine; the blood is thoroughly mixed with urine, like coffee-ground sediment.

"Pressure in the bladder, extending up into the kidneys, when sitting, disappearing when walking."—*Hale*.

"Urine black, with coffee-ground sediment; great emaciation and weakness; clear watery, profuse; incontinence at night, or scanty, turbid, dark, epithelial sediment; albuminous; bloody or containing sugar."—*Hg*. [In toxæmic fevers.]

"Burning and drawing from the right kidney to the hip; worse in damp atmosphere."—*Hg*. [Gonorrhœal rheumatism.]

Urine scanty and bloody; most distressing strangury, with great loss of blood; great soreness of the bladder for several days.

"Heaviness and pains in the region of the kidneys."—*Bouchart*.

Sexual Organs, Female.—"Gonorrhœa, with strangury, tenesmus of the bladder, smarting in the urethra."—*Hg*.

Puerperal metritis, and peritonitis, with burning and bearing-down in the uterus, with excessive tympanitis; muttering delirium and great prostration.

Mouth.—"Tongue red, smooth, and glossy, as if deprived of papillæ in typhoid fevers."—*Dr. Wood*. [Very characteristic.]

Also tongue is red and glossy, in stomatitis and entero-colitis.

Stomatitis materna, extending from the mouth to the anus; tongue very sore, red and glossy, burning like fire; immense tympanitis; no pain; low muttering delirium; prostration.

"Teeth; scorbutic affections, with hæmaturia."—*Hg*.

Stomach.—Loss of appetite, great thirst, in gastro-enteritis.

Intense burning in the stomach, with nausea and vomiting of mucus, bile, or blood; copious hemorrhages.

Pressure in the stomach as if he had swallowed a ball.

Abdomen.—Great burning in the right hypochondrium.

Biliary calculi. Dr. Durand believes Turpentine will dissolve and permanently cure gall-stones. If it will really dissolve these calculi, its value can not be over-estimated. If one teaspoonful of *Chloroform* was added to one of Terebinth, I would have great faith in it for the expulsion of gall-stones, if given in repeated doses, with Olive oil.

Meteorismus, the excessive distention of the abdomen with gas, is one of the marked characteristics of Terebinth.

Frequent colic from excessive tympanitis; in septic fevers.

Gripping, pinching colic, with muco-purulent stools.

"Enterocolitis, with hemorrhages and ulceration of the bowels, especially epithelial degeneration; stools of mucus and water, more in the morning."—*Hale*. [Typhoid diseases.]

I have found that the stools are more in the afternoon and evenings, where Turpentine acted best; in chronic enterocolitis.

This is a most excellent remedy in chronic diarrhoea; and for hemorrhages from the bowels in typhoid fever, we have no better remedy, accompanied with great tympanitis.

Typhoid fever, with excessive tympanitis; excessive languor and prostration; frequent loose stools; and especially where there are copious hemorrhages from the bowels from the ulceration of Peyer's glands; accompanied with muttering delirium, etc.

In diarrhoea, prostration is excessive, with burning in anus.

"Stools of mucus and water, worse in the morning, with violent burning in the rectum and anus after stool."—*Hg*.

"Worms, with foul breath, choking sensation, dry, hacking cough; burning and tingling in the anus, with sensation as if ascarides were crawling about,—sometimes with spasms."—*Hg*.

Tænia. In from one to two ounce doses, in combination with a cathartic of Castor oil, Turpentine has often removed and cured tænia. The oil prevents the absorption of the Turpentine, thus preventing its toxic action.

Air-Passages.—"Dryness of the mucous membrane of the lungs, with great burning in the chest along the sternum."—*Hak*.

"Bronchial catarrh; dry cough, no expectoration, or blood-streaked sputa, or copious mucous expectoration."—*Hg*.

"Hemorrhage from lungs."—*Hg*. [Especially passive form.]

"Unbearable burning and tightness across chest, with great dryness of mucous membranes, or profuse expectoration."—*Hg*.

"Asthma, difficult respiration, as if from congestion of the lungs; worse from motion."—*Hg*. [With neuralgic symptoms.]

Heart.—Pulse weak, thready, small, compressible, in all kinds of septic fevers, as *puerperal*, *typhoid*, *yellow fever*; *scarlatina*, *epidemic dysentery*, *traumatic erysipelas*, etc., with the abdominal and vesical symptoms as noted above.

Head.—Neuralgic headache, with burning pains.

"Stupor, deep sleep; uræmia, fainting; dull, languid; relieved by micturition."—*Hg*. [In toxæmic fevers.]

"Mind clear, then unconscious, followed by inability to concentrate his mind."—*F. W. Rogers, M. D.* [Septic fevers.]

"Sudden vertigo, with obscuration of sight."—*Hg*.

Intense pressure and great fullness of the head; dull headache, with violent nosebleed; septic fevers, scarlatina, etc.

Puerperal convulsions, from uræmic poisoning (hypodermic).

Uræmic spasms in albuminuria, with great prostration.

Generalities.—Intense neuralgia of the lower limbs, especially in damp weather. Excellent in various neuralgias.

Fever with violent thirst, profuse sweat, and excessive prostration; entero-colitis, with stools of blood and mucus.

Cold, clammy sweat all over the body; toxæmic fevers.

In lumbago, neuralgia, chilblains, sprains, myalgia, used locally, often affords prompt relief. If mixed with Camphor and Acetic acid in equal parts, it will be greatly improved.

Cancer. The new treatment for cancer now is *Chian Turpentine*. It is said to destroy the cancer cells, leaving the vessels to become atrophied, acting on the periphery of the growth with great vigor, causing its speedy disappearance, and an entire cessation of the pain in a few days. Let us hope that this is true. It probably relieves the pain from its specific action upon the sentient nerves. It is given in pills, six grains at a dose.

Gangrene. Turpentine locally on lint, has cured many cases.

Corns. Applied locally every night, will cure in one week.

"This is a grand remedy, of whose uses we know far too little. It is not only adapted to diseased conditions of all the mucous membranes, to kidney diseases, to worms, to all of the hemorrhages (one of the very best hæmostatics), but to very deep-seated nervous diseases, as nervous headache, and neuralgia of the extremities. One case of neuralgia of the lower limbs of fifteen years' standing, was cured with ten-drop doses after everything else had failed."—*W. H. Holcombe, M. D.*

Aggravation.—Morning and evenings; damp weather, and when lying down.

Amelioration.—When walking; during day, and dry weather.

TEUCRIUM MARUM VERUM.

Cat-Thyme.

Habitat, Europe. Tincture according to Class III.

Through the cerebro-spinal system, Teucrium has one special center of action:

I. MUCOUS MEMBRANES. *Catarrhal Inflammation; Vermicide.*

Teucrium selects the mucous membrane of the lower bowels as its special center of action. It also affects that of the nose prominently, producing violent sneezing, congestion and inflammation of the mucous membrane.

This is a grand remedy for ascarides, where there is great itching of the anus. Also for *polypus narium* as a snuff, with creeping, biting sensation in the vicinity of the polypus. It has acted well in ingrowing toe-nail.

THLASPI BURSA PASTORIS.

Shepherd's Purse.

Habitat: Asia, Africa, America, etc. Tincture of fresh plant in flower, Class II.

Through the cerebro-spinal nervous system, Thlaspi has one special center of action:

I. VASCULAR SYSTEM (OVARIO-UTERINE ORGANS). *Hemorrhages.*

Vascular System.—Thlaspi acts upon the whole venous vascular system, but especially centers upon the vascular system of the generative organs of women, causing congestion and copious hemorrhages. It also produces hemorrhages from all parts of the body.

Therapeutic Individuality.

Sexual Organs, Female.—Especially adapted to menorrhagia; menses too frequent, lasting too long, degenerating into a hemorrhage continuing many days, blood clotted, with menstrual colic.

Premature menstruation; "first day she hardly had a show, but on the second day there was a real hemorrhage, with severe colic, vomiting, and expulsion of clots; flow continued very long, eight, ten, and even fifteen days, then left the patient in a state of exhaustion, from which she had not time to recover before another period; one period very profuse, the next less so."—*Jousset*.

"I have met with special success in hemorrhages, with violent uterine colic, and cramps, consequent on abortion; at the critical age; and even where there was cancer of the neck."—*Jousset*.

Hemorrhage from cancer of the uterine neck, without pain.

It has given good satisfaction, in tincture, and up to the 12th dilution. Dr. Jousset gives the tincture, from one to twenty drops at a dose.

Hemorrhages.—"Profuse hemorrhage from all parts of the body."—*Lippe*.

An excellent remedy in hæmoptysis and epistaxis; blood dark and clotted.

THUJA OCCIDENTALIS.

Arbor Vitæ.

Habitat: America, etc. Tincture of the fresh leaves during inflorescence, Class II.

Antidotes.—Camph., Cham., Puls., Sabin., Sulph., Merc.

Through the vegetative nervous system, Thuja has six special centers of action:

- I. SKIN. *Fig-warts; Condylomata; Tubercles; Sycosis.*
- II. MUCOUS MEMS. *Acid Secretions; Corroding Ulcers; Polypi.*
- III. SEXUAL O., MALE. *Chronic Blennorrhœa; Prostatitis; Sycosis.*
- IV. SEXUAL O., FEMALE. *Delayed Menses; Leucorrhœa; Ovaritis.*
- V. BLOOD AND SERUM. *Dissolution; Acridity.*
- VI. URINARY ORGANS. *Diuresis; Sphincter Paralyzed.*

Skin.—Thuja was Hahnemann's great remedy for *sycosis*, that peculiar poison whose characteristic action is shown upon the skin and mucous membrane by the formation of fig-warts and condylomata (combination of syphilis and gonorrhœa). Thuja produces on the skin generally, and on the anus particularly,

warty excrescences and tubercles. "The fig-warts being hypertrophies of the cutaneous papillæ, Dr. Petroz has argued that other growths of like nature—as warts and polypi—are also products of the syeotic virus. While this is doubtful enough, I think he is justified, both from theory and from practice, in claiming for Thuja a like efficacy in their treatment. He gives cases of polypus of the uterus and larynx which came away spontaneously under its action; and both he and Mayerhofer relate numerous instances of its cure of warts. One of these is especially interesting, as showing how the drug acts in the same direction as the disease. A woman had four horny and painful warts on her hands of three years' standing. After taking from six to ten drops of the tincture of Thuja daily for a month, first one and then another crop of new but painless warts appeared on the hand. After leaving off the drug, these soon disappeared, and the old ones vanished simultaneously, leaving her hands quite free. I myself have had most successful results from Thuja in warts. If one or two only are present, they should be painted with the mother tincture daily; but, when they come in crops, the internal administration of the drug is the proper treatment. I have more than once seen large collections of these excrescences of long standing, disappear in a few weeks under infinitesimal doses of the medicine. . . . Boenninghausen and others have thought that Thuja has some specific action in small-pox, even so as to prove prophylactic against it, as Belladonna against scarlatina. More evidence seems required here. But there is no doubt that Thuja has proved curative of 'grease' in horses, which may partake of the same nature as vaccinia and variola. It has often been of eminent service in veterinary practice, as in the treatment of farcy and of the warty vegetations of the surface so common in the lower animals."—*Hughes*.

Mucous Membranes of the Sexual Organs.—Thuja produces inflammation of the prepuce and glans, warts, tubercles, ulcers; in the female acrid leucorrhœa, retarded menstruation, fig-warts, condylomata, etc. Dr. Wolf says: "It produces irritation of the mucous membrane of the genital organs, extending itself over all these organs, changing the naturally mild secretion into one of an acrid, corroding, infectious quality."

"The Austrian provings, which are entirely confirmatory of Hahnemann's, show that the main action of Thuja is on the genito-urinary organs, with the anus, and on the skin. It causes copious and frequent urination, burning in several parts of the mu-

cous tract, pains of various kinds in the penis; inflammation of the prepuce and glans; ulcers, tubercles, and other excrescences on the sexual organs, with itching and profuse sweating; and, in the female, leucorrhœa. The sexual appetite is depressed, and the catamenia retarded. Burning, itching, swelling, and mucous discharge occurred at the anus. . . . Hahnemann recommended it as the most homœopathic remedy for the non-syphilitic form of venereal disease, which he called 'sycosis.' His attention was also drawn to the condylomatous excrescences, or fig-warts, which, perhaps more frequently then than now, were apt to accompany the contagious blennorrhœa of the urethra. He formed the opinion that these were the chancre of the non-syphilitic venereal miasm, and, like that, constituted the vicarious local manifestation of the internal evil. If cauterized or otherwise destroyed, they either returned in the same spot, or similar excrescences broke out in other parts of the body,—whitish, fungous, sensitive, flat elevations in the cavity of the mouth, on the tongue, palate, and lips, or large, elevated, brown, dry tubercles in the axillæ, on the external neck, scalp, etc.

"The pathology of this subject, so far as condylomata are concerned, still remains obscure. Jahr, who was a devoted follower of Hahnemann, differs from him about it, holding the common view that condylomata, with the mucous patches in the mouth described as connected with it, are products of syphilis; while Drs. Skae, Wallace, and Rose Cormack agree with Hahnemann. The former, who, from his experience at the Edinburgh Lock Hospital, spoke with some authority, states that the condylomatous form of venereal disease is known in some parts of Scotland under the distinctive name of '*sibbons*.' There seems no doubt that the true chancre not uncommonly sprouts into condylomatous vegetations before disappearing, or becomes transformed *in situ* into a mucous patch; and that both fig-warts themselves, and mucous tubercles, like them, may occur as manifestations of syphilis. But it is also certain that condylomata are frequently met with in connection with gonorrhœa, and even without any other venereal sign whatever. Dr. Skae relates, that when so occurring, they may be communicated by contagion, and that secondary symptoms accompany them in the shape of whitish elevations on the mucous membrane of the mouth and fauces, a husky tone of voice, and perhaps some cutaneous eruptions. He evidently, with Hahnemann, considers that condylomata, with or without gonorrhœa, are themselves the primary phenomenon of a specific venereal taint."—*Hughes*.

Blood and Serum.—Dissolution of all the fluids of the body, which become very acrid. The acidity is probably caused by Thuja perverting the lymphatic secretions. Dr. Wolf says: "It disturbs digestion and sanguification; tendency to destruction; dissolution of the fluids, and the whole organism."

Therapeutic Individuality.

General Indications.—Thuja is especially adapted to the hydrogenoid constitution, which is related, according to Grauvogl, to sycosis as effect to cause. This constitution is distinguished from the oxygenoid and the carbo-nitrogenoid, in that it is more hygroscopic, i. e., it possesses an increased capacity to contain water; hence, rain, cold, damp weather, baths, and food, that increases the number of molecules of water in the system, aggravate the symptoms of the hydrogenoid constitution.

It is the great antidote to disease of a sycotic origin, which generally shows itself in the shape of warts, condylomata, cauliflower excrescences, on or about the genital organs and hairy parts of the body, and mucous membranes.

"In Thuja we meet a surplus of the producing life; thus, the nearly unlimited proliferation of pathological vegetations, as found in the condylomata, the warty excrescences, the spongy tumors, and the spongy pock. In fact, the exudates organize hastily. All morbid manifestations of Thuja are excessive. They appear quietly, sneaking as it were, so that the beginning of the diseased state is not known."—*Goullon*.

Mind.—"Mental uneasiness; low-spirited and desponding; tired of life; morose; dissatisfied; unsteadiness."—*Goullon*.

"Patient often feels as though she could not exist any longer; extremely scrupulous about the least thing."—*G*.

"Loathing of life; very ill-humored and depressed."—*Hah*.

Mental labor is impossible; forgetful; makes mistakes, and can not collect his senses; very desponding, in gonorrhœa.

"Stupefaction of the head; vertigo; reeling sensation, as after frequently turning in a circle."—*Goullon*. [Tertiary syphilis.]

"Sensation as if the whole body were very thin and delicate, and could not resist the least attack; as if the continuity of the body would be dissolved."—*G*. [Chronic hysteria.]

"Sleeplessness at night; restlessness and tossing about; anguish, which does not allow him to sleep; sleep full of dreams and startings."—*Goullon*.

The very restless sleep at night is characteristic of Thuja.

Head.—"Headache on the left side, as if a convex button were being pressed on the part."—*G.* [Rheumatic affections.]

"Headache early in the morning; sometimes he feels as if the head were screwed asunder in the articulation of the malar bone and the upper jaw; sometimes as if a nail were driven into the vertex with a jerk, sometimes as if the forehead would fall out."—*Goullon.* [Gonorrhœal rheumatism.]

"Transitory pain in the left frontal region as if a nail had been driven into the frontal eminence."—*Hah.*

"Headache, worse from sexual excesses; overheating; better from exercise in the open air, looking upward and turning, and from tea."—*Hg.*

"Eruption moist, corroding on occiput and temples, worse from touch, better from rubbing; wants head and face warmly wrapped."—*Hg.*

"White, scaly dandruff; hair dry and falling out."—*Hg.*

Eye.—Induration of the eyelids. "Is useful in *tinea ciliaris*, with dry, bran-like eruption on the eyelids, chiefly about the ciliæ; eyelashes irregular and imperfectly grown; skin scaly; eyes weak and watery."—*Dr. R. F. Cooper.*

"As a remedy for stytes and tarsal tumors, it is very valuable, especially for verucæ and tumors that resemble small condylomata; internally and externally."—*A. and N.*

"Old chronic catarrhal conjunctivitis, in which the granulations are large like warts or blisters, with burning in the lids; worse at night, with excessive photophobia."—*A. and N.*

"The action of Thuja upon the sclera is more marked than that of any other drug; and it has given excellent success in *episcleritis*, *sclero-choroiditis* and *staphyloma*. For syphilitic iritis, marked by *condylomata on the iris*, it is a grand remedy, with sharp, sticking pains and much heat."—*A. and N.*

"Amblyopia, vision blurred; flames of light before the eyes, mostly yellow; white spots like bottles moving about."—*Hah.*

Seems as if cold air rushed in and out of the eyes; must cover them up to keep them warm; eyes relieved by warm covering; very sensitive to cold, damp weather. Of great use in malignant blennorrhœa, especially in leucophlegmatic temperaments, that are always chilly.

Ears.—Scrofulous otorrhœa, in hygroscopic temperaments; the discharge is watery, purulent, with crackling sounds in the ear, especially in young, growing children.

Nose.—Chronic catarrh; sensation as if the nose were stopped up; dry coryza; discharge from the nose of mucus and blood, in fat, hygroscopic temperaments, with much chilliness.

"Blows out much thick, green mucus, mixed with blood and pus; painful scales in the nostrils."—*Hg.* [Chronic venereal catarrh.]

Mouth.—Sycotic nodules frequently suppurating and forming flat ulcers; deep ulcers of the mouth.

Foul taste, with map tongue, in chronic dyspepsia.

"The inner mouth feels as if full of blisters, as if he had burnt it, with redness of the gums. Tip of the tongue sore to the touch. Pressing stitching under the tongue. White coating; swelling of the tongue; fauces dry and sore; swelling of the salivary glands, they secrete a great deal of bitter or bloody saliva."—*Goullon.*

Teeth decay at roots; crumble and turn yellow; pain at night.

Swelling of the tonsils and throat, with chronic congestion of the fauces, and flat ulceration of the parts; sycotic syphilis.

Mucus very tenacious and difficult to loosen. Moist, broad, flat, or roundish tubercles in the throat. Chronic catarrh.

Stomach.—"Canine hunger, alternating with loss of appetite, or long-continued loss of appetite; fullness after eating as if he would burst; thirst mornings."—*Goullon.*

"After eating, slimy, sweetish taste in the mouth; or flat, bitter eructations as from a spoiled stomach. Pain in the pit of the stomach; after eating, the abdomen bloats; excessive flatulence; bad effects from eating greasy, fat food."—*Goullon.*

"The fluid he drinks falls audibly into the stomach; pit of the stomach swollen; sensitive; indurated."—*Hg.*

Gastrodynia, with contractive pains in the stomach; excessive flatulence; pulsations in the epigastrium; chronic dyspepsia.

Pressure as from a stone in the hepatic region when walking.

Pressure in the abdomen, with contractive colicky pains.

Bowels.—Constipation is marked. "During an attempt at stool, the pain in the rectum and anus is so great she has to desist, she can not pass the stool; the suffering and pain in the anus are greatly increased during motion; the violent contractive pain in the anus is followed by tearing pains in the bowels."—*G.*

"Feeling in the rectum as if boiling lead was passing through it, with burning, pricking pains in the anus."—*Raue.*

Painful contraction of the anus; unable to void the constipated stool on account of the painful fissures of the anus.

"Stools, pale yellow, watery, copious, forcibly expelled; gurgling like water from a bung-hole; much thirst; worse in morning; chronic form, with emaciation and debility."—*Bell*.

Anus fissured, painful to touch; often with warts; sometimes immense numbers of these flat, moist mucous tubercles or condylomata surround the anus, especially in syphilitic subjects.

Urinary Organs.—Frequent inclination to urinate; the stream is often interrupted before the urine is entirely voided; has to rise several times at night to micturate; urine red, depositing a thick brick-dust sediment; during micturition, cutting in the urethra; smarting and itching of the female pudendum, with the discharge of some drops of urine after micturating; burning itching, stitching in the urethra; chronic gonorrhœa and prostatitis.

"Copious, frequent urination; burning in urethra."—*Hughes*.

"Chronic incontinence of urine, from paralysis of the sphincter vesicæ."—*Dr. Polle*. [In old, flabby constitutions.]

Sexual Organs, Male.—Thuja is of great value in sub-acute and chronic cases of gonorrhœa, especially when injections have been used and the prostate is involved. "Dr. Boehm writes that an extensive experience has taught him that the prostate is more or less affected in all gonorrhœas which have lasted longer than six or eight weeks, and that this condition of the gland is itself the cause of a good half of all chronic cases of this disease. In such conditions, he has the utmost confidence in Thuja. My own experience is quite in favor of the specific influence of Thuja on the prostate. I have derived unequivocal benefit from it in several cases of acute and chronic inflammation of the gland. It should be useful also in balanitis."—*Hughes*.

Chronic gonorrhœa, with sycosis; burning during and between urination; red, smooth excrescences on the glans penis; fig-warts and condylomata all over the sexual organs of both sexes, that exude a glutinous, foul-smelling matter; mucous tubercles in the urethra; proliferating syphilis; thin, green discharge, especially in women, with loss of appetite; psychical depression, and sleeplessness; flabby constitutions.

"The chief sphere of action for this remedy is the modifications of the chancre virus that are described as *idiopathic condylomata*, *mucous tubercles*, and *sycotic excrescences*. It is more particularly the humid products of this kind, such as cauliflower excrescences, and still more mucous tubercles. Thuja is very efficient here, but of little use for dry, filiform fig-warts."—*Jahr*.

"Several ulcers on the prepuce and glans, growing above the skin, clean looking, but suppurating profusely; vegetating ulcers on the glans penis; deep, humid furrows, covered with pus, seated on the swollen prepuce; ulcers on the prepuce, raised above the skin like warts, cut half through (mucous tubercles?). The discharges excoriate."—*Goullon*.

"Stitches in the glans, itching with moisture, like blennorrhœa, with round flat ulcers on the corona glandis."—*Goullon*.

"Aching pain in the testes as if contused; varicose degeneration of the epididymis; continual erection; pollution, with sensation in the urethra as if it were too narrow."—*Goullon*.

"Checked gonorrhœa, causing articular rheumatism; prostatitis; impotence and sycosis."—*Hg*.

Sexual Organs, Female.—"Thuja corresponds fully to woman's nature, inasmuch as the habitus of the female sex represents those characteristics which approach the hydrogenoid constitution, or sycotic dyscrasia, or even Virchow's leucocythæmia. The same may be said of the infantile organism, and its disposition to scrofulosis in its manifold dispositions. The abundant blennorrhœa, the many knotty indurations, the numerous glandular affections, even the greater tendency to vesicular spasm, to an impure skin (tedious ulcerations), the melancholia, far more frequently observed in women than in men, speak clearly for our theory."—*Goullon*.

"The vagina is filled with warty excrescences, with great burning and smarting pains; she is so sensitive in the vagina that she can not possibly bear an embrace."—*G*.

"Profuse mucous leucorrhœa, with thin, long warts, or fig-warts on the face or genitals."—*G*. [Very acrid.]

"Ulcers on the internal surface of the vulva and perinæum, with cramp-like pains in the vulva when rising from a seat, extending up into the abdomen."—*G*.

"Ulceration of womb; green or bloody discharge."—*G*.

Sexual desire extremely elated or depressed; irresistible desire for onanism, she gives herself up to the vice, even during sleep; chronic impotence.

Ovaries. "Severe burning pain in the left ovary, aggravated by walking, riding, and at every menstrual period."—*Ludlam*.

"A terrible distressing pain occurs in the left iliac region, when walking or riding; she must lie down to get relief, especially aggravated at the menstrual period."—*G*.

"Terribly tormenting pain in the left ovarian and inguinal region, with scanty menstruation."—*Goullon*.

"Retarded menstruation."—*Hughes*. [The menses are not only retarded, but are inclined to be scanty in Thuja.]

Ovaritis, especially the left one, in flabby, lymphatic women.

Uterine cancer based on syphilitic constitution; the cauliflower excrescences bleed easily and emit a very foul odor.

Polypus of the uterus and vagina.

Granulations and fleshy excrescences growing from the mucous membrane of the uterus, soft and spongy, jutting out like warts, and are easily detached, sycotic temperaments; they are a frequent cause of long-continued hemorrhages, or bloody leucorrhœa. In fleshy, flabby women.

Pregnancy. Abortions are very frequent; labor-pains are very feeble; the motion of the child causes cutting pains in the bladder, with urging to urinate.

Mucous tubercles on the nipples, on the labia, anus, or corners of the mouth. In leucophlegmatic people.

Respiratory Organs.—"Stitches in the larynx; sensation of crawling in the trachea; hoarseness; cough early in the morning when rising, as if excited by sharp things; expectoration of gray, yellow, or greenish little balls, or of yellow mucus, with pain in the pit of the stomach."—*Goullon*.

Sycotic erosions of the fauces, with dry, teasing cough.

"Difficult, oppressed breathing; oppression of the chest as if something had grown fast to it; stitches in the chest; strong palpitation of the heart, especially when ascending stairs."—*Goullon*. [Much emaciated, in those that have been fleshy.]

"Asthma, worse at night, with red face; coughing spells, or sensation of adhesion of the lungs."—*Hg*.

Cough evenings and at night, with loose green or yellow expectoration; tastes like old cheese, and aggravated by cold water and air. Drinking anything cold aggravates the cough; chronic cases.

Heart's action greatly excited evenings; sycotic rheumatism.

Back.—"Feeling of stiffness in the nape of the neck, with restlessness and nausea; pain in the neck as if he had been lying on a hard couch; dull, painful pressure in the small of the back while stooping; bruised feeling all over; the veins of the neck are bloated and blue; strong perspiration in the axillæ; brown spots under the arms like moles; brown spots on the hands are a sure indication for Thuja."—*Goullon*.

Extremities.—"Paralytic feeling in the arms, as if he had lifted too heavy a burden; painful difficulty of moving the arms;

severe rheumatic, drawing pains in the bones, as if the flesh were separated from the bones; bruised feeling as if beaten black and blue; boring in the joints; tingling in the fingers, as if they had gone to sleep, redness and swelling of the phalanges."—*Goullon*.

"Painful feeling of relaxation in the hip-joints, as if the articular capsules were too flaccid and weak to support the body; tension from the hip-joint to the groin, and along the posterior part of the thigh down to the knee."—*Goullon*.

"Cracking in the elbow, knee, and tarsal joints when stretching the limbs; weariness in the internal muscles of both thighs, as if they would break down; pain in the heel, as if gone to sleep; stitches above the heel in the tendo Achillis; inflammatory, red swelling of the dorsa of the feet and of the toes, with tension when stepping on them; voluptuous itching, with red, marble-like spots; shining, red, inflammatory swelling of all the toes; burning, tearing stitching in the corns."—*Goullon*.

A close simile for rheumatism, especially gonorrhœal.

Ingrowing toe-nail has often been cured with Thuja locally.

Skin.—Sweat only on uncovered parts, while covered parts were dry and hot; very restless and desponding.

Moist tubercles, especially of the ears, cheeks, chin, nipples, inguinal region, and hairy parts of the body; in syphilitic children, every part of skin; the discharges are very excoriating.

In secondary and tertiary syphilis, with fissures of the anus and herpetic, moist ulcers of skin, especially in lymphatic people.

"Thuja occupies a front rank in the treatment of variola of every degree, as a prophylacticum, and during the disease; it aborts the pustule and prevents the suppurative fever."—*Goullon*. [Many physicians have great faith in it.]

Strong perspiration, especially in the axillæ, with brown spots on the arms and hands; skin of the hands dry.

"Excessive development of the panniculus adiposus; lipoma, warts, pustules, with dirty secretion, e. g., at the extensor side of the fingers, on the skin of the whole body between the lamellæ of the epidermis."—*Goullon*. [Tertiary syphilis.]

Sequelæ of vaccination in lymphatic children. The left side is more apt to be involved, with filthy ulcerations.

For warts and condylomata, apply the tincture externally, and give a high dilution internally. Many cures have been made.

Bleeding fungous growths; epithelioma; painful pemphigus; blood-boils on the back, and flat ulcerations of the skin.

Hair thin, grows slowly, splits, and falls off.

Skin looks dirty ; brown spots here and there, with white spots, especially in tertiary syphilis.

Edema about the joints ; emaciation and deadness of the affected parts, in people that have been very fleshy.

Chilliness predominates ; always chilly from the least change of weather.

Aggravation.—During rest ; from heat of bed ; in the forenoon ; from narcotics, and cold, damp air.

Amelioration.—In open air ; from warmth, and from warm, dry weather.

TRILLIUM PENDULUM.

Beth Root.

Habitat: America, etc. Tincture of the fresh root, Class III.

Through the cerebro-spinal system, Trillium has two special centers of action:

- I. CAPILLARY BLOOD VESSELS. *Relaxation and Hemorrhages.*
- II. MUCOUS MEMBRANES (UTERINE). *Mucorrhœa; Putrescence.*

Capillary Blood-Vessels.—Through the vaso-motor nervous system, Trillium acts on the capillary blood-vessels, causing relaxation of the muscular fiber of the digestive organs, kidneys, and especially of the uterus, thereby producing copious hemorrhages. Dr. Hale says: "Like all anti-hemorrhagics, it doubtless possesses some influence over the vaso-motor system of nerves. It may be primarily homœopathic to vaso-motor spasm, and secondarily to vaso-motor paresis. In large doses, it checks nearly all hemorrhages. In small doses, it checks passive hemorrhages. In attenuated doses, it cures the results of suppressed discharges of blood (perhaps mucus). . . . We have no proving of this remedy showing its pathogenetic action upon the generative organs of women, nor can we decide with any certainty as to the pathological states which it would induce in the uterine tissue. To say it acts by giving tone to the uterus, would not convey any exact idea, although it actually has that effect ; it

stimulates the uterine nerves to healthy action; and, as a consequence, we have muscular tonicity, and a healthy condition of the mucous membranes. Hemorrhages from the uterus either arise from relaxation or laceration of the blood-vessels of that organ, or from abrasion or relaxation of its mucous coats."

Mucous Membranes.—Trillium produces relaxation of the mucous membranes, with copious hemorrhages, especially of the uterus; and no remedy that we possess is more useful in active and passive hemorrhages.

Dr. Coe says: "Its dynamic influences are chiefly directed toward the mucous surfaces, over which it seems to exercise a special control. Though mostly employed in affections of the uterine system, it is, nevertheless, of great utility in the treatment of all diseases involving the mucous membranes. It is decidedly antiseptic, and is useful in correcting a tendency to putrescency of the fluids, and the fetor of critical discharges. [This latter I know to be a fact.] Slight hemorrhages occurring from wounds, cancerous ulcerations, etc., may be corrected by its local application."

Therapeutic Individuality.

Sexual Organs, Female.—Its great field of usefulness lies among the hemorrhages, especially from the uterus and kidneys. We possess no better remedy in active and passive uterine hemorrhages. Dr. Hale believes it excels Sabina, Secale, and Hamamelis; and, from my experience with it in uterine hemorrhages, I can say the same.

"Excessive flooding, with fainting; face pale and anxious; extremities cold; no pain."—*Dr. E. G. Wheeler.* [Flabby subjects.]

In passive internal uterine hemorrhages, with occasional clots, and much fetor, it has proved in my hands extremely reliable. Flooding with fainting, to me is a key for its use. In many cases where fainting was a prominent feature from loss of blood, Trillium has arrested the hemorrhage at once.

"Profuse uterine hemorrhage, at the climacteric period, with prostration, vertigo, dimness of sight, palpitation of the heart, and painful sense of sinking at the pit of the stomach."—*Dr. E. M. Hale.* [From excessive loss of blood.]

"Menses every fourteen days, lasting seven or eight days; in the intervening time, profuse leucorrhœa, of a yellowish color and creamy consistence; the blood is at first bright red, but, owing to anæmia, grows pale."—*Raue.*

"Terrible bloody leucorrhœa; great anæmia."—*Dr. Fickler.*

"Profuse exhausting leucorrhœa, with atony, prolapsus, and chronic engorgement of the cervix."—*Dr. Coe.*

Profuse yellowish leucorrhœa, with much debility.

"Profuse [long-lasting] lochial discharges."—*Dr. Coe.*

Digestive Organs.—"Passive hemorrhages [and active] from nearly all mucous membranes, especially of the kidneys and nose."—*Hale.*

"Chronic-diarrhœa of bloody mucus."—*Dr. Coe.*

Usually the tincture in from two to five drop doses will arrest the hemorrhages, sooner than the dilutions.

URANIUM.

Nitrate of Uranium.

Chemical Preparation. Trituration. Aqueous solution the best.

Through the cerebro-spinal system, Uranium has five special centers of action:

- I. STOMACH. *Nausea, Vomiting; Gastritis; Ulceration; Thirst.*
- II. DUODENUM. *Inflammation; Ulceration.*
- III. KIDNEYS. *Inflammation; Albuminuria; Glycosuria.*
- IV. SEROUS MEMBRANES. *Inflammation; Dropsical Effusions.*
- V. CORD (MOTOR). *Complete Muscular Paralysis.*

Digestive Organs.—I have the pleasure of taking from the valuable monograph of E. T. Blake, M. D., the following physiological facts from his experiments upon animals and man: "Like most metallic salts, this drug is a pure irritant, showing a marked specific relation to the alimentary organs. Its characteristic reactions are concentrated on the abdominal viscera; and, of those viscera, the *stomach* and *duodenum* were observed to suffer in as many as fifty per cent of the animals experimented upon.

"Ten rabbits were treated with the drug; in every rabbit, with the exception of one, there was some deviation from the normal state to be seen in the pyloric end of the stomach. In three rabbits, there were found gastric ulcers, in each instance deep, well defined, and solitary. In one cat, there were two ulcers in the

duodenum. These were specific effects of the drug; for it was introduced into the areolar tissue of the lower extremities.

"The Nitrate of Uranium exerts a specific action on the circulation of the stomach and duodenum, producing ulceration of the pylorus, resembling that of Kali bichromicum, Arsenic, and Argentum nitricum. Thirst and vomiting were well marked in these experiments."

Urinary Organs.—All the indications point to the kidneys as the main field for the action of Uranium; and chronic renal degeneration, with albuminuria, or glycosuria with ascites, are marked features of this metal. Dr. Blake's experiments tend to show that Uranium does not possess the glycogenetic powers attributed to it; but Dr. Magdenburg says: "I have satisfied myself by my own experiments, that, after several weeks' ingestion of small doses of Uranium muriaticum or Nitricum by healthy persons, sugar can be found in the urine;" and there is an abundance of clinical experience that proves Dr. Magdenburg correct in the statement, that Uranium has not only caused, but cured, many cases of glycosuria.

In Dr. Blake's proving, the action of Uranium was to increase the total quantity and specific gravity of the urine,—the excess being either in the urates or chlorides,—and to produce acridity, with mucous discharges and incontinence of urine. Another marked effect was to produce albuminuria in many cases of the animals poisoned; and Dr. Blake says: "It ought to be useful in Bright's disease, and kindred renal maladies; in contracted, gouty kidneys, with gastric disturbances; in irritable conditions of the renal plexus of the sympathetic. It seems singular that it should have cured cases of sugar diabetes, which it undoubtedly has done."

Liver.—No one seems to have studied out the action of Uranium upon the liver. There is no doubt that it does affect the liver, and that this has something to do with its action in glycosuria; for irritation of the duodenum is powerfully reflected upon the liver, and must be so in the case of Uranium.

Serous Membranes.—On the serous membranes, especially the peritoneum, Uranium has a marked action; in the nineteen animals poisoned, six had ascites; and, in peritonitis with effusion, as well as hydro-pericardium, Uranium should prove to be a valuable ally.

Cerebro-Spinal System.—The brain symptoms are probably mostly sympathetic, from gastro-intestinal irritation; but, through the spine, Uranium has a marked and specific action upon the end organs of the motor nerves, i. e., the muscles, as shown by the excessive languor and profound prostration produced in the animals poisoned; five drops of the first decimal being sufficient, when injected under the skin, to kill a rabbit; and two drops were sufficient to suspend life in a full-sized cat, and completely prostrate the animal's muscular system. It acts prominently upon the lower portion of the cord.

Therapeutic Individuality.

Urinary Organs.—Uranium is, without doubt, the most homœopathic remedy yet discovered for diabetes, many cases having been cured with the drug used in the first three triturations and dilutions. Dr. Blake thinks the cases that call for this drug have much irritation of the stomach and bowels; but cases have been cured where none of these symptoms have been marked, excepting the thirst; great emaciation, and profound debility. In acute and chronic diuresis of children and adults, we have no better remedy. Dr. Cook cured a case of incontinence of urine in a young girl, who had been troubled from infancy. I have great confidence in Uranium, in children that have incontinence of urine at night from worms; the urine is often excoriating.

"Burning in the urethra, with very acid urine; urinary tenesmus."—*Dr. Blake.*

Sexual Organs, Male.—Completely impotent, with nocturnal emissions.

Sexual Organs, Female.—Excessive lacteal secretion.

Vertigo; faint flushing of upper part of body, during menstruation.

Head.—Great despondency; ill-temper; cross; disagreeable.

Vertigo; heaviness of head; restless at night, with shivering.

"Headache; dull, heavy pains in the forehead, right temple, and occiput."—*Blake.*

"Pain over left eye, contracted feeling in throat; eructations followed by diuresis (most specific effect of the drug)."—*Dr. Blake.*

"Eyelids inflamed and agglutinated."—*Dr. Blake.* [Glands enlarged.]

Nostrils sore, with purulent, acrid discharge; chronic catarrh.

Digestive Organs.—Ulcers in the buccal cavity, with copious salivation; accompanied by nausea and great thirst.

"Vomiting; much nausea; intermittent vomiting, with great thirst."—*Dr. Blake.*

"Loss of appetite during catamenia."—*Dr. Blake.*

"Excessive flatulency in stomach and bowels."—*Dr. Blake.*

Excessive thirst very marked symptom, emaciation, diabetes.

Dyspepsia, intermittent attacks of pain, with sinking at epigastrium and acid eructations, flatulency and copious urination.

Has cured several cases of gastric and duodenal ulcers.

"Abdomen bloated, with slight diarrhœa; sharp colic and tenesmus, with burning in the rectum."—*Dr. Blake.*

Enteritis and peritonitis, with meteorism; great prostration.

Peritonitis followed by copious effusion.

Generalities.—Bronchitis, with copious mucous expectoration and much emaciation; old chronic cases.

Stiffness of the loins, urine of a fishy odor, and great debility.

"Extreme languor on rising from bed."—*Dr. Blake.*

"The debility caused by Uranium is very marked; and it will probably prove a valuable ally in combatting certain forms of prostration, resulting from severe organic lesion."—*Dr. Blake.*

Great emaciation is a marked symptom of this drug, and is well shown in diabetes.

Tendency to general dropsy; effusions of serum from all of the serous membranes, especially pleura and peritoneum.

URTICA URENS.

Stinging Nettle.

Habitat: America, Europe, etc. Tincture of the fresh plant, Class III.

Through the posterior spinal end organs, *Urtica* has four special centers of action:

- I. SKIN. *Edema; Erysipelatous Inflammation; Urticaria.*
- II. MUCOUS MEMBRANES. *Gastro-Intestinal Inflammation.*
- III. GLANDULAR SYSTEM. *Increased Secretion of Milk.*
- IV. VASO-MOTOR SYSTEM. *Stimulated.*

Skin.—This is the grand center for the action of *Urtica urens*. When taken internally, or applied locally, *Urtica* produces an in-

flammation very similar to nettle-rash, with great œdema, the least puncture causing serum to follow, with suppression of urine. In one case of poisoning, it caused: "Pricking heat, numbness, burning of the skin of the face, arms, shoulders, and breast; eyes puffed, cedematous; on the lips, nose, and ears, vesicular eruption; speech became difficult, with extreme anxiety; followed by desquamation."—*J. G. Houard, M. D.*

Mucous Membranes.—Here it produces gastro-enteritis, dysentery, nausea, vomiting, with fainting, and inflammation of the genito-urinary organs.

Glandular System.—On the mammæ, *Urtica* has a specific action. In a case cited by Dr. J. G. Houard, milk was re-established in the woman's breast *three years* after the birth of the last child, although she never had been able to suckle, no milk having been secreted after labor. The breasts were greatly swollen, discharged at first serum, afterward perfect milk for eight days, in large quantities. It has also been reported to have cured goiters.

Therapeutic Individuality.

Skin.—The chief use of *Urtica* is found in the treatment of urticaria, where the skin becomes elevated, with a white central spot and a red areola, attended by stinging, burning pains, and requires to be rubbed all the time. (Internally and as a cerate.)

When the eruption looks pale like the stings of nettles, and requires to be rubbed all the time, *Urtica* is of great value.

"As soon as she lay down again, eruption and itching disappeared entirely, and re-appeared immediately after rising again. Will only cure when this symptom is prominent."—*Dr. Chapusat.*

"The upper part of the body enormously swollen, pale, and dropsical, and covered with confluent, small, transparent vesicles, filled with serum and sudamina."—*Dr. King.*

In anasarca and dropsy following scarlatina, where the kidneys are involved, with excessive œdema of the feet.

It is the most useful remedy we have for scalds and burns, where the tissues are not too much destroyed. Use the cerate.

Extremely distressing burning heat and formication of the skin; the hands and fingers much swollen; erysipelatous inflammation.

Digestive Organs.—"Sensation of soreness in the bowels while lying down; and on pressure, a sound as if the bowels were filled with water."—*Dr. Shaw.* [Peritonitis followed by effusion.]

Enteritis, with stools of mucus and blood."—*Lippe*.

Diarrhœa in skin diseases, from suppression of the eruption.

Hemorrhage from the bowels, lungs, or uterus.

For ascarides with great rectal irritation, the 1st dilution is splendid.

Sexual Organs, Female.—Menorrhagia; uterine hemorrhage.

"Insufficiency or entire want of secretion of milk after parturition."—*Lippe*. [Supposed to greatly increase the flow of milk.]

Leucorrhœa, the discharge being very acrid and excoriating.

Pruritus vulvæ with great stinging and itching; the same with the scrotum; with much œdema of the parts.

Has often cured epistaxis, hæmatemesis, and menorrhagia.

USTILAGO MADIS.

Smut-corn.

Habitat: America, Europe, etc. Trituration of the ripe fungus, while fresh.

Through the cerebro-spinal nervous system, *Ustilago* has seven special centers of action:

- I. CIRCULATION. *Long-Lasting Arterial Capillary Contrac'n.*
- II. VEINS. *Dilatation; Passive Hemorrhages.*
- III. SKIN. *Loss of Hair, Teeth, and Nails.*
- IV. GLANDULAR SYSTEM. *Congestion; Hypertrophy.*
- V. CEREBRO-SPINAL SYSTEM. *Congestion; Paralysis.*
- VI. SEXUAL O., MALE. *Prostration; Impotence; Neuralgia.*
- VII. SEXUAL O., F. *Oxytotic; Venous Hemorrhages; Ovaralgia.*

Circulation.—Through the cerebro-spinal, and especially the vaso-motor, nervous system, *Ustilago* has a specific action upon the arterial and venous capillary blood-vessels. On the arterial capillary vessels, it produces *long-lasting contraction*. This contraction is so great that the arterial blood is finally arrested, and the result is complete death of the tissues. *Ustilago* produces *great dilatation* of the venous capillary vessels, with *passive venous congestion* in all the tissues upon which it acts.

Ovario-Uterine Organs.—The action of this drug on the female sexual organs, is similar in all respects to that of Ergot,

with this difference: The oxytocic effects of *Secale* are more powerful than those of the *Ustilago*; but the passive venous congestion of *Ustilago* is greater than that of *Ergot*. *Ustilago* produces uterine contractions of much power, and is a grand substitute for *Ergot*, but can not displace it.

In a cow-house where cows were fed on Indian corn infested with this parasite, eleven of their number aborted in eight days. After their food was changed, none of the animals aborted. Six drachms given to two bitch dogs with young, soon caused them to abort, and fowls fed on this fungus lay eggs without shells.

Many physicians have reported cases of labor where the uterus was in an atonic condition, with very feeble pains. *Ustilago* was given and immediately brought on violent uterine contractions, and, some say, more powerful pains than could be produced by *Ergot*; but here they were mistaken. All agree that the lingering pains between the contractions are not as great when *Ustilago* is given, as they are when *Ergot* is administered. The passive venous congestion produced in the uterus by *Ustilago*, is one of the most marked effects of the drug. From this congestion, we have passive uterine hemorrhages, which may in some cases take on an active form. This congestion produces hypertrophy, displacements, etc.

Ovaries.—The vascular system of the ovaries is most powerfully affected by this drug, producing congestion, enlargement, and great irritation, with ovaralgia, dysmenorrhœa, and especially menorrhagia; and the clinical results of this remedy in the above affections have been equal to those of any known drug.

Sexual Organs, Male.—It produces congestion with, first, excitement, soon followed by great prostration of these organs, with complete loss of all sexual desire, neuralgia of the testicles, etc.

Skin.—Through its action on the arterial and venous vascular capillaries, *Ustilago* has a specific and marked action on the skin. The whole skin becomes dry, hot, and congested. Eruption all over the skin similar to rubeola. By rubbing any part of the body a few moments, it would break out with this fine red eruption. On face and neck, it came in patches like ring-worm (*herpes circinatus*), but not vesicular. The eruption is about the size of a pin's head, itches violently at night, and constantly remains red and hard. The chest and joints are more affected than any other parts of the body. The whole scalp became one filthy mass of inflammation; two-thirds of the hair

came out; and what was left in was mostly matted together. A watery serum kept constantly oozing from the scalp, so profuse as to keep the hair constantly wet.

"Shedding of the hair, both of man and beast, and sometimes even of the teeth. Mules fed on it lose their hoofs, and fowls lay eggs without shells."—*Rawlin*.

"The hair, hoofs, nails, and teeth are but prolongations of the true skin. Any drug which profoundly affects the skin, will probably affect similar structures. *Ustilago* appears to act by preference upon the thickest and hardest of the dermoid tissues. Its action in this respect resembles the effects of such diseases as *itchthyosis syphilis*, and *tuberculosis*."—*Hale*. [It does this by its long-lasting vaso-motor spasm driving completely out the capillary circulation.]

Glandular System.—Through its action upon the vascular capillaries, it has a marked effect upon the *lymphatics*, *testicles*, and *ovaries*, producing irritation and congestion, with all their attending symptoms, affecting particularly the functions of the lymphatics.

Cerebro-Spinal System.—Here its action resembles that of Ergot, but is not so powerful. It doubtless acts very similarly to Ergot on the spine. Dr. Hale thinks it acts on the *trophic* nerve-cells in a special manner.

Therapeutic Individuality.

Before giving the therapeutics of *Ustilago*, I wish to impress upon the minds of those that use the drug, the fact that the remedy should not be over one year old; for it rapidly deteriorates by age, similarly to Ergot. The fungus should be gathered in the fall, just before the frost touches it, and thoroughly triturated. A tincture can also be made of it according to Class III.; but I prefer the triturations. A saccharated extract would be just what we want.

Head.—Very sad, cries frequently, and is excessively prostrated from sexual abuse and loss of semen. Sleep restless.

Sexual dreams with emissions, followed by great prostration.

Great depression of mind is a marked effect of *Ustilago*.

Frontal headache, aggravated by walking.

Feeling of fullness of head, with dull, pressive frontal headache.

Violent frontal headache; as if the forehead would burst open.

Sharp flying pains in the forehead ; congestion of the brain.

The whole scalp is hot, dry, and congested, with loss of all the hair in both man and animals (alopecia).

Scald head; two-thirds of the scalp one filthy mass of inflammation, with loss of most of the hair ; a watery serum constantly oozing from the scalp, was a marked effect on one lady.

Eyes.—Aching in the eyeballs, with profuse secretion of tears ; dull aching pain in the right eyeball ; smarting of the eyes, with profuse secretion of tears in the open air.

Dryness of the nostrils as if he had taken cold.

Constant dull pain in the left ear, caused by extension of inflammation of the tonsils along the Eustachian tube.

Burning sensation of the face and scalp, from congestion.

Mouth.—Slimy, coppery taste is a prominent symptom.

Constant dull aching pain in the first and second upper molars ; they are decayed and have ached before.

"Shedding of the teeth."—*Rawlin*. [In animals.]

Prickling sensation in the tongue, with a feeling as if something was under the roots of the tongue pressing upward.

Dryness of the fauces, with difficult deglutition.

Congestion and inflammation of the tonsils, left one greatly enlarged, of a dark color, accompanied with dull pain, much aggravated by swallowing ; chronic cases.

Feeling as if there was a lump behind the larynx, which produces constant inclination to swallow ; catarrhal inflammation.

Dryness of the fauces, with a burning distress in the stomach.

Gastric Symptoms.—Loss of appetite, or canine hunger, with thirst at night ; indigestion ; gastralgia.

Eructations of the ingesta ; eructations of food strongly acid.

Very faint feeling a number of times in the epigastrium, with pain in the region of the liver and bowels.

Constant distress in the region of the stomach ; burning distress in the stomach, probably from excessive acidity.

Burning distress in the sternum and stomach, accompanied with fine neuralgic pains in the same region, lasting about three minutes at a time ; come on every ten or fifteen minutes for several hours ; sharp cutting pains in the stomach, with much burning distress in the epigastrium.

Abdomen.—Grumbling pains in the abdomen all the afternoon, followed by dry, hard stool ; fine cutting, colicky pains

every few minutes all day, relieved by a hard, constipated stool, followed by dull distress in the bowels.

Constipation of the bowels; stools dry, lumpy, and black; or the bowels may be natural; more apt to be constipated.

Good deal of pain for two days in the region of the liver.

Dull pain in the right hypochondrium, with distress in the small intestines; indigestion and constipation.

The abdominal symptoms caused by *Ustilago* are mostly located in the epigastrium and right hypochondrium.

Urinary Organs.—Urine red and scanty, diminished one-half; copious flow of colorless urine; hysterical subjects.

Sexual Organs, Male.—Sexual dreams every night, with emissions, followed by great mental prostration.

Sexual dreams, followed the next day with great physical prostration; pain in the lumbar region; great despondency and irritability. (It is of much value in chronic spermatorrhœa.)

Profound prostration of the sexual organs for weeks; the scrotum is relaxed, with cold sweat upon it most of the time.

Neuralgia of the testicles; spells of violent pains in the testicles, more in the right; every five minutes sharp pains in the testicles that produce faintness; constant aching distress in the right testicle for days (marked symptom in my proving).

Of much value in chronic orchitis, neuralgia, and irritable testicle; indurated testicle and spermatorrhœa.

Sexual Organs, Female.—Here is the most useful center for *Ustilago*. As a *uterine motor*, no remedy excels it excepting *Ergot*; and its indications are the same as those for the use of *Ergot*, i. e., the os uteri is dilated and relaxed, the pains feeble from inertia of the uterus. From one-teaspoonful doses of the Fluid Extract, regular intermittent contractions every three or four minutes will take place in from fifteen to twenty minutes, and continue from two to four hours. The pains of *Ustilago* are more intermittent, like labor-pains, and not so tonic as those of *Ergot*.

In ovarian irritation, ovaritis, amenorrhœa, dysmenorrhœa, menses premature, retarded, too scanty, too short, suppressed, menopause, menorrhagia, and metrorrhagia, *Ustilago* has given great satisfaction, and in *menorrhagia* and *metrorrhagia* from chronic uterine congestion, with great relaxation and a general atonic condition of the genitalia; the blood is dark colored, and the hemorrhage of a passive nature. In such cases, no remedy will do better than the *Ustilago*.

Dr. J. H. Woodbury says: "It controls *uterine hemorrhage* and induces *uterine contractions* in a manner similar to Ergot, but not with the same promptness or vigor. Ustilago is pre-eminently the Ergot of chronic uterine hemorrhages and passive congestions, where for many days there has been a slow but persistent oozing of dark blood with small black coagulæ; when the finger, upon being withdrawn from the vaginal examination, is covered with a dark, semifluid blood, as though partial disorganization had taken place; when the uterus is enlarged, the cervix tumefied, and the os somewhat dilated, but swollen and flabby, indicating that the whole organ is in a most passive and congested state; when, in spite of all treatment, the blood continues to ooze day after day, simply from lack of some means of overcoming its '*invincible inertia*.' Ustilago in such cases is a remedy of most gratifying promptness and efficiency. It will not only control the hemorrhage, but remove the entire pathological condition upon which the hemorrhage depended."

It will also cure, if given in large doses, many cases of active and constant flooding, with frequent clots of bright red blood, with hard bearing-down pains, by producing arterial capillary contraction.

Menorrhagia at the climacteric, from ovarian irritation, burning distress in the right ovary; flooding lasts for weeks; blood dark colored, with many clots; vertigo, with much pain on the top and side of the head, and a great gone feeling in the epigastrium. Portal congestion.

Menstruation too frequent, too profuse, and lasts too long.

Suppressio menses from ovarian inertia; much pain in the ovarian region; flatulence, and great soreness of the bowels.

Ovarian dysmenorrhœa, with severe pains in the ovaries, uterus, and back, every few minutes; spasmodic pains in the left ovary, which is very sore and tender.

Abortion with bearing-down pains as if everything would come from her; in flabby constitutions.

Ovaritis, constant pain in the ovary, with sharp pains passing down the leg rapidly; ovary much swollen and very tender, with scanty menstruation. Atonic constitutions.

Intermittent neuralgia of the left ovary, which is as large as a hen's egg, and very tender to the touch. (Large doses.)

Vertigo at the climacteric, with too frequent and too profuse menstruation; accompanied with frequent flushing.

Between the menses, constant misery under the left breast.

Vicarious menstruation from the lungs and bowels.

Nervous headache,—menstrual irregularities; atonic females. Hypertrophy and sub-involution of the uterus, with *great atony*. Has acted favorably in fibroids, and cured induration of the os. A tendency to miscarriage from *general atony* of the uterus.

In post-partum hemorrhages from a *flabby, atonic* condition of the uterus, Ustilago is of great value.

In scarcity of milk, Ustilago has acted well.

Puerperal peritonitis, with constant flooding; high fever; secretions very putrid; Abdomen excessively tender and tympanitic, from abortion. (Ustilago has cured several cases.)

Back.—Dull aching pains in the shoulder-joints.

Severe rheumatic pains in the lumbar region, aggravated by walking; aching distress in the small of the back.

Arms.—Severe rheumatic pains in the muscles of the right shoulder, lasted all night; muscular rheumatism.

Rheumatic pains in the arms, hands, and fingers, lasted a week.

Dull rheumatic pains in the right elbow-joint, worse on motion.

Severe drawing pains in the joints of all the fingers; fine, sticking pains along the metacarpal bone of right forefinger every few seconds; sharp, cutting pains along the metacarpal bones of right hand; loss of the finger-nails.

Legs.—Rheumatic pains in the legs; flying, rheumatic pains in the metatarsal bones of the right foot.

Skin.—The whole skin is dry, hot, and congested.

Chronic urticaria, with intolerable itching at night.

Copper-colored spots on the skin; secondary syphilis; maculæ.

In pustular ulceration of the skin, scald head, and various forms of eczema, Ustilago has done good service.

Painful destructive diseases of the nails; loss of the hair.

Alopecia; complete loss of hair from long-lasting congestion of the scalp; tendency to small boils; skin dry and hot.

Aggravation.—From motion.

Amelioration.—During rest.

VALERIANA.**Valeriana Officinalis.**

Habitat: Europe, etc. Tincture of the dried root, Class IV.

Antidotes.—Camph., Coff.

Through the cerebro-spinal system, Valeriana has six special centers of action:

- I. CERE BRO-S. SYSTEM. *Hysterical Hyperæsthesia; Spasms.*
- II. DIGESTIVE ORGANS. *Stimulation.*
- III. KIDNEYS. *Diuretic; Urine Loaded with Phosphates.*
- IV. SEXUAL O., FEMALE. *Aphrodisiac; Neurasthenia; Hysteria.*
- V. CIRCULATION. *Excited; Temperature Increased.*
- VI. EYES. *Mydriasis; Fiery Flashes.*

Cerebro-Spinal System.—"Valerian appears to exert a direct influence on the nervous centers, of the same kind as, but more enduring than, that of Ambra, Asafoetida, Moschus, and other nervines. It especially affects the brain and the organs of sense. It causes giddiness, headache, and mental excitement, with (as Heberden observed) 'agitation and hurry of spirit.'"—*Hughes.*

"Berbier gives an account of a patient in the Hotel Dieu, of Amiens, who, after taking six drachms of Valerian daily for some time, woke up delirious, fancying that the side of the ward opposite to where he lay was in flames. Other patients who had taken the medicine, imagined that flashes of fire darted from their eyes. When taken in large doses, there can be no doubt that Valerian causes headache, hallucinations, with much mental excitement. The headache often shifts to the left side, but retains its original character."—*Phillips.*

Eyes.—Large doses produce sparks and flashes of light, even to the extent of objects seeming to be on fire; the pupils extremely and fixedly dilated.

Spine.—Valerian acts more powerfully on the motor nerves, but also affects the sensory, as shown by lively formication of the hands and feet, and a sensation about the head and spine which has been compared to the *aura epileptica.*

From its action on the motor nerves we have restlessness and spasmodic movements of the limbs; staggering gait, and finally complete prostration of the motor end organs.

Circulation.—"The action upon the circulation is chiefly shown in those of its morbid states in which the pulse becomes frequent and feeble, denoting the exhaustion which succeeds an over-excited state of the nervous system; under these circumstances, it renders the pulse less frequent, and at the same time stronger."—*Stille*.

In large doses, the action of the heart is increased, the temperature of the surface rises, and diaphoresis occurs.

Sexual Organs.—These organs are greatly excited by Valerian, producing all kinds of hysterical symptoms.

Dr. Ludlam thinks it has some specific action upon the ovaries. I believe it causes neurasthenia of the sexual organs of women, and that this explains all of its hysterical actions. It excites the sexual passions of cats to a remarkable degree. Foy says: "Cats discover it by the smell at a long distance. They are seen rolling themselves upon the plant, and are heard mewing and purring in the most extraordinary manner. After a while they are seized with spasms and convulsions, and at last expire in a kind of voluptuous frenzy."

Digestive Organs.—*Stille* says: "Two drachms at a single dose generally occasion a sense of heat and warmth in the abdomen, eructations, hiccough, and frequently vomiting, colic, and diarrhœa, with some excitement of the circulation." Moderate doses increase the appetite and improve the digestion. Large doses kill rabbits by producing gastro-enteritis.

Kidneys.—"The desire to urinate is one of the results of taking Valerian in an overdose. Micturition not only becomes more frequent and profuse, but the fluid is generally turbid; deposits 'a bran-like sediment,' a 'brick-red sediment,' or a slimy sediment, which seems to dissolve after shaking the vessel."—*Phillips*.

Therapeutic Individuality.

Nervous Affections.—This is one of our most reliable remedies in hysteria. In hysterical females, where the intellectual faculties predominate, it is of great value; when we find excessive nervous excitability; hysterical spasms; fearfulness, and tremulousness, with palpitation of the heart. In all diseases where Valerian is indicated, the hysterical element predominates.

"Nervous affections occurring in excitable temperaments. In hypochondriasis it calms the nervousness, abates the excitement of the circulation, removes the wakefulness, promotes sleep, and induces sensations of quietude and comfort; sadness is removed. In globus, in all asthmatical and hysterical coughs, and nervous palpitation of the heart; profuse flow of limpid urine."—*Phillips*.

Mind and Head.—Great melancholy and irritability; morose, easily exasperated.

"Vertigo, with a sensation as if flying."—*Dr. Jessen*.

"Ecstasy, mild delirium, with great excitement and trembling; erroneous ideas; thinks she is some one else, moves to edge of bed to make room; imagines animals lying near her which she fears may hurt; during typhoid fever."—*Hg.* [Or hysteria.]

Hysteria, passes quickly from one subject to another.

"Headaches appearing suddenly, or in jerks; pressing as from a stupefying constriction in the forehead, drawing into orbits; face pale; worse evening, at rest, and in open air; better from movement, in the room and from motion."—*Hg.*

"Violent pressure in the forehead, followed in a few minutes by sticking in the forehead, especially over the orbits; soon the sticking changes again to pressure, and so on in constant alternation; the sticking is like a darting tearing, as if it would pierce the eyes from within outward."—*Stapf*.

Sensation in the head of great coldness; hysterical subjects.

Eyes.—"Smarting in the eyes as if caused by smoke; pressure in the eyes; margin of the lids swollen and sore."—*Gross*.

* Frequent flashes of light before the eyes, with dilated pupils.

Nervous diseases of the eyes that are long lasting; the eye has a wild look, and the sight is much confused; hysteria.

Ears.—Nervous affections of the ears, with ringing, jerking, and cramping pains, and hissing sounds; hyperæsthesia.

Face.—"Cheeks red and hot, especially in the open air."—*Hg.*

"Facial pains appearing suddenly in jerks; spasmodic twitching and drawing in the cheek bones."—*Hg.* [Hysterical women.]

"Fierce pains through the left side of face, darting into teeth and ear; muscles twitch; hysterical neuralgia."—*Hg.*

"White blisters, with elevated red base, on the cheeks and upper lip, painful to touch."—*Hg.*

Mouth and Throat.—White lips, body icy cold, with faintness. Tongue thickly coated, with taste as of rancid tallow.

"Stinging pain in the teeth; bad taste in the mouth."—*Hg.*

"Feels a sensation as if a thread was hanging down in the throat, with tickling deep in the throat."—*G.* [Characteristic.]

"Sensation as of something warm rising in the throat, arresting breathing."—*G.* [Globus hystericus. Marked symptom.]

"Voracious hunger with nausea."—*Hg.* [Fitful appetite.]

Stomach.—"Eructations like putrid eggs, morning on waking; heartburn, gulping of rancid fluid, which does not rise into the mouth."—*Hg.* [Chronic dyspepsia.]

"Nausea, with sensation as from a string hanging down the throat; profuse ptyalism."—*Hg.* [Very characteristic.]

"Pressing aching in the pit of the stomach as from something forcing a passage through it; neuralgia of the limbs; spasms of the stomach, in lymphatic, hysterical females, difficult breathing; faintness and great tympanitis."—*Hg.*

For flatulence of the hysterical and hypochondriacal, Valerian is a specific; the abdomen is hard and distended.

"Colic; hysterical, especially evenings in bed; after dinner; from hæmorrhoids, and worms."—*Hg.* [Excessive flatulence.]

Stools.—"Thin, watery diarrhœa, with lumps of coagulated milk; greenish, papescent stool, with blood; constant pressing and violent screaming; especially in children."—*Hg.*

Urine.—Nervous, hysterical urine, flow copious.

"During urination, much straining and prolapsus recti, with red or white sediment."—*Hg.* [Nervous people.]

Sexual Organs, Female.—"Menses too late and scanty."—*Hg.*

Hysterical spasms at the appearance of the menses.

"The child vomits as soon as it nurses; after the mother has been angry."—*Hg.* [Excessively hysterical.]

Respiratory Organs.—Hysteria, dyspnœa, and chorea.

"Choking in throat-pit on point of falling asleep; she awakens as if suffocating; respirations grow less deep and more rapid until they cease; then she catches her breath with a sobbing effort; so on in spells; asthma."—*Hg.*

"Frequent jerks and stitches in the chest, with a sensation as if something pressed out; worse in lower part of chest."—*Hg.*

"Stitches in region of heart; pulse rapid, tense or feeble."—*Hg.*

Back.—Rheumatic pain in the shoulder-blades, darting along the arms, shoulders, and face; hysterical neuralgia.

"Pain in the loins as from cold or over-lifting."—*Lippe*.

"Spine irritated, in beginning of typhoid fever."—*Hg*.

Limbs.—Neuralgia, the pain is unbearable. Sciatica. "The pain is unbearable while standing, with a feeling as if the thigh would break off."—*Raue*. [Hysterical debility.]

"Acute crampy, tearing pain in posterior muscles, especially those of calf; better in the morning, and from rubbing; worse toward evening and when quiet."—*Hg*. [Neurasthenia.]

"Rheumatic pains in limbs, rarely in joints; worse during rest; better from motion; arms at rest jerk and twitch."—*Hg*.

Hysteria, with over-sensitiveness of all the senses.

Fever.—"Short chill; long-lasting heat; dull headache; thirst with fainting during the chill."—*Hg*. [Very nervous people.]

Long-lasting heat; worse evenings; neuralgia of the limbs and restlessness; great thirst with the fever; indigestion.

"Profuse perspiration, especially at night; and from exertion, with violent thirst."—*Hg*. [From great debility.]

Frequent sudden attacks of perspiration, especially on the face, which again disappears suddenly, in hysterical women.

Flushings of the face at the climacteric, with faintness, dyspnea, cold perspiration, great restlessness, despondency, and great weakness

The hysterical element predominates in all diseases in which this drug is called for; and I most always use the *Valerinate of Zinc*, instead of the *Valeriana*.

Aggravation.—From evening till midnight; after sleep and rest. The neuralgia is greatly aggravated by rest, and standing; relieved by rubbing.

Amelioration.—From motion; after midnight, and from walking.

VERATRUM ALBUM.

White Hellebore.

Habitat: Europe, Asia, etc. Tincture of the dried root, Class IV.

Antidotes.—Camph., Coff., Acon., Cinch., Ars., Ferr.

Through the cerebro-spinal nervous system, Veratrum has five special centers of action:

- I. MUCOUS M. (GASTRO-INTESTINAL). *Congestion; Inflammation.*
- II. PNEUMOGASTRIC N. *Viol. Choleraic Vom.; Watery Diarrhoea.*
- III. HEART. *Blood-Pressure Lessened; Collapse and Death.*
- IV. TEMPERATURE. *Greatly Lessened.*
- V. CEREBRO-SPINAL SYSTEM. (MOTOR TRACT.) *Spasms; Paralysis.*

Gastro-Intestinal Canal.—The picture Veratrum album presents is decidedly choleraic. "There is general coldness, with prostration going on to collapse, embarrassed circulation, copious watery vomiting and purging, cramps in the extremities, and severe spasmodic colic. The vomiting and purging of Veratrum are specific; appearing, however the poison may have been introduced into the system. The more recent investigations of Schroff have further proved that these evacuations do not depend upon gastro-enteritis; as Veratrum, when introduced directly into the circulation, causes no inflammation, and even when swallowed produces at most a transient hyperæmia of the parts with which it comes in contact. If its action becomes more intensified, it causes a rapid degeneration of the gastric mucous membrane, but no gastro-enteritis."—*Hughes.*

We do not agree with Schroff, in the statement that Veratrum does not produce gastro-intestinal inflammation, but believe, with Drs. C. L. Mitchell and Aulmont, that it does produce inflammation. "According to the latter, the chief difference in the action of Veratrum album and the Viride, is in the intensity of the action of Veratrum album upon the alimentary canal, and the induction by it of violent inflammation of the whole alimentary mucous membrane; and death is much more apt to result from Veratrum album than from Veratrum viride."

Heart and Circulation.—In cases of human poisoning with *Veratrum album*, in addition to the excessive vomiting, severe abdominal pain, and diarrhœa, there is "very pronounced reduction of temperature and pulse, the latter being sometimes rapid and almost imperceptible in the advanced stages, and finally becoming extinct, with sunken eyes, contracted, anxious countenance; a cold, clammy skin, with profuse perspiration, and other evidences of collapse; the mind remaining clear until the last."—*Wood*.

"The influence of Veratrine on the heart is very complicated. In the first place, the cardiac muscle suffers the same changes as the other muscles; and this would suffice in itself to account for the most of the symptoms. The heart, excised, and separated from all extrinsic nervous influence, when acted upon by the Veratrine, at first contracts more frequently and powerfully; later on, the contractions diminish in both frequency and force, till they cease altogether, and can not be renewed by direct irritation. It is highly probable that the intrinsic cardiac motor nerve centers take the same share in this process as the muscles; but the regulatory cardiac nerves are also affected by the poison. The vagus is excited at its origin by small doses of the poison. Thus, in the frog and the rabbit, a retardation of pulsation has been observed, which after section of the vagus gives place to an acceleration. But the cardiac extremities also of the vagus are at first excited, and afterward paralyzed. The ultimate result of the action of Veratrine on the heart is, therefore, complete paralysis. In the early stages of the action of Veratrine, an increase of blood-pressure is often noticed, together with acceleration of cardiac pulsation; but later on, there is a constant decrease of blood-pressure. This is attributable to the condition of the vessels; for, according to Bezold and Hirt, these are first stimulated and contracted through their vaso-motor center by the poison, and later on they are paralyzed and dilated."—*Prof. H. von Boeck*.

Cerebro-Spinal System.—Through these nerves, *Veratrum* acts especially upon the muscular system.

"The investigations of Bezold and Hirt show that Veratrine at first increases and afterward diminishes muscular excitability. A muscle poisoned by Veratrine reacts for a long time to direct or indirect irritation by a twitching, which at the first glance might be mistaken for tetanus, but which is quite different in its course, and can be excited by very few poisons except Veratrine. The Veratrinized muscle generates much more heat upon simple irri-

tation than the healthy muscle. The action of the Veratrum mainly affects the muscles; and its influence on the motor nerves is comparatively subordinate. This influence of Veratrine on the muscles explains, at least partially, the phenomenon of muscular contraction. Another cause of these convulsions lies in the action of the poison on the motor nerve center, the convulsions all being central in action."—*Ziemssen*.

Dr. Hughes thinks the spasms are due to a direct action of the drug upon the muscular substance. They are a primary expression of a toxic influence, which soon goes on to paralysis.

Therapeutic Individuality.

General Indications.—"Sudden sinking of innervation, causing loss of power to control one's movements; staggers about; feels dizzy; vision becomes obscure, and complete extinction of nervous power is going on at a fearful rate."—*Hempel*.

Mind and Head.—Cold sweat on the forehead, with anguish and fear of death; wanders about the house; is very taciturn; demented; headache causing delirium.

Puerperal mania and convulsions, with violent cerebral congestion; bluish and bloated face; protruded eyes; wild shrieks, with disposition to tear and bite.

Excessive mirthfulness; collapse of pulse; cold sweat on the forehead; expression of fright; anxiety and stertorous breathing.

"Attacks of pain, with delirium, driving to madness."—*Hg*.

"Disposed to talk about the faults of others, or silence; but, if irritated, scolding and calling names."—*Hg*.

"She is inconsolable over a fancied misfortune, runs about the room howling and screaming; or sits brooding, wailing and weeping, and is inconsolable."—*Hah*.

"Blood rushes violently to the head on stooping; headache, with vomiting of green mucus; headache in the vertex like a flattening, which becomes throbbing on movement."—*Hah*.

Vertigo in drunkards, opium-eaters, or those who use tobacco, characterized by sudden faintings, collapse of pulse; loss of vision; cold sweat on forehead; nervous headache at each menstruation.

"Sick-headache, in which diuresis forms a crisis."—*F*.

"Sensation as if a lump of ice was on top of head."—*Raue*.

"Sensation as if a bunch of hair were electrified; crawling and bristling of the hair, with coldness of the scalp."—*Hah*.

Face.—Cold, collapsed face; pinched-up, bluish nose; dry and cracked lips; lock-jaw; grating of the teeth, with cold sweat on the forehead.

"While in bed, face is red; after getting up, it becomes pale; neck too weak to hold up the head, particularly in children with whooping-cough."—*Hg.*

"Leaden color of the face, with frequent nausea and vomiting, and great exhaustion."—*G.*

Eyes.—Pupils contracted, with diplopia and photophobia.

Hemeralopia, with great dryness of the lids, and diarrhœa.

Eyes distorted, fixed, sunken, lusterless, surrounded by dark rings, in intestinal and choleraic diseases.

Nose.—Nose grows more pointed; face and mouth icy cold.

Epistaxis, from right side, especially at night.

The inside of the nose and throat feel too dry.

Mouth.—Tongue cold; voice feeble in choleraic diseases.

Great dryness of the mouth; dry, blackish, cracked tongue, or coated yellow, with red tip and edges.

Burning in the mouth and throat, with profuse flow of saliva.

Throat dry and burning, with scraping in the throat.

Unquenchable desire for cold drinks; wants everything cold.

"Thirst, with craving for the coldest drinks."—*G.*

Aversion to warm drinks; flat, sweetish taste.

Stomach.—Craves fruits, juicy food, or salty things.

"Frequent nausea or vomiting, with leaden color of the face, and cold perspiration, especially on the forehead."—*G.*

Motion, or the least quantity of liquid, excites nausea and violent vomiting.

Nausea, with profuse salivation and violent thirst.

Violent, forcible, excessive vomiting of food, of green mucus, of slimy, acid, foamy mucus; of bile and blood, with continued nausea; fainting, and excessive prostration.

Burning and oppression in the epigastrium; irritation and neuralgia of the cœliac plexus; nausea and vomiting; great prostration and cold perspiration.

"Violent pressure in the pit of the stomach, which extends into the sternum, the hypochondriac region, and as far as the ilia, with violent vomiting."—*Hah.*

Abdomen.—Terrible colic; violent nausea, and vomiting, with copious watery diarrhœa and great prostration.

Colicodynia, with sensation as if the bowels were tied up in knots; the suffering causes cold sweat on the forehead.

Burning in the bowels like hot coals; much flatulence and great tenderness of the abdomen.

Stool.—"As the autumn comes on, when vomiting is super-added to the purging, and when the intestinal evacuations are expelled in a forcible gush, with little or no griping; colic often associated with hiccough, and a sensation of suffocation in the chest."—*Hughes*.

Very exhausting, copious, involuntary watery diarrhœa, expelled with great force; great weakness after every stool, with cold sweat on the forehead.

Involuntary watery diarrhœa without the patient's knowledge, with hippocratic countenance, and cold extremities.

"Frequent violent diarrhœa, profuse and painful."—*Hah*.

"Constipation on account of the hardness and large size of the stools; can not be expelled."—*Hah*. [Paralysis.]

Urinary Organs.—Urine scanty; red; often suppressed in choleraic diseases; during coughing and typhoid fever, it is often involuntary.

Sexual Organs, Female.—Nymphomania, from unsatisfied passion or mental causes; puerperal mania.

"Dysmenorrhœa, with vomiting and purging; or exhausting diarrhœa, with cold sweat, especially on the forehead."—*Hg*.

Menses too early, too profuse, and very exhausting.

Respiratory Organs.—Cold breath, with great prostration, and cold perspiration on the forehead.

Spasmodic loose cough, with blue face; suffocation; retching. Veratrum is not called for until the second or loose stage of catarrh, when the mucus is secreted in great quantities, and the spasmodic element prevails; this rattling mucus is expectorated with great difficulty.

Capillary bronchitis; blue face; œdema of the lungs, and great fear of suffocation.

"Asthma in damp, cold weather; in early morning; better on throwing the head back; inclination for motion, with cold sweat of upper part of body."—*Hg*.

Constriction of the larynx; suffocative fits; spasm of glottis.

Heart.—"Palpitation; anxiety; rapid respiration."—*Becher*.

"Violent beating of the heart, which moves the ribs."—*Hah*.

Very slow pulse, which is almost lost; irregular; intermittent.

Oppression of the chest about the heart, with dyspnœa and anguish.

"Palpitation in the anæmic; agony of death; legs cold; difficult breathing; better at rest or lying down."—*Hg*. [Cholera.]

Neck and Back.—Neck so weak the child can scarcely keep it erect.

"The muscles of the nape of the neck seem paralyzed."—*Hah.*

"Rheumatism between the scapulæ; from nape of neck to the small of the back; burning along the spine."—*Hah.*

Upper Extremities.—Hands blue and icy cold, in cholera.

"Arms feel cold and too full, when raising them; neuralgia of brachial nerve; arms tremble much."—*Hg.*

"Crawling in the hands, as if they had been asleep."—*Hah.*

Lower Extremities.—Great weakness of all the limbs.

"Walking very difficult; like paralysis, changes from hip to hip."—*Hah.*

"Cramp in calves; pain in shin bones, as if broken."—*Hah.*

Trembling of the limbs; spasms; great debility following.

"Complete muscular prostration; rapid sinking of all the forces; he sinks down completely exhausted; great paleness of the face."—*Hah.*

Sudden swelling of the feet; they are cold and anasarcaous.

Skin.—Skin blue, purple, cold; wrinkled (cholera).

Scarlatina; measles, eruption tardy; nausea, vomiting, and great prostration.

Skin livid, cold; pulse thready; drowsy, and very restless.

Fever.—Fevers with great coldness externally, and violent internal heat; pulse thread-like; great craving for cold drinks; people who are habitually cold and deficient in vital reaction.

Chill and coldness predominate, with cold sweat on forehead.

Intermittents, with coldness overshadowing everything, and great thirst; congestive in nature, relieved by warmth; chilliness runs from head to feet; sweat, with deathly pale face; pneumogastric nerve involved, with nausea; violent vomiting; diarrhoea, and great prostration.

"Sweat cold, clammy; offensive, bitter smelling, or staining yellow; always with deathly pale face."—*Hg.*

Copious cold, clammy sweat with every stool; in cholera.

Cold sweats, and vomiting of mucus, with cholera morbus.

In most all gastric diseases calling for this drug, there will be found cold sweat upon the forehead.

Aggravation.—After drinking, or eating ice-cream; before and during stool; on rising; morning and evening.

Amelioration.—While sitting and lying; in the open air, and during the day.

VERATRUM VIRIDE.

Green Hellebore.

Habitat: America, etc. Tincture of the dried root (green is better), Class IV. I always use Squibb's Fluid Extract. Norwood's Saturated Tincture can not compare with it.

Antidotes.—Stimulants, Ether, Caps., Injections of Ammonia, Op., Amyl nit.

Through the cerebro-spinal nervous system, Veratrum viride has sixteen special centers of action:

- I. CORD (ANTERIOR). *Muscular Paral.; Loss of Reflex Action.*
- II. CORD (POSTERIOR). *Slight Anæsthesia; Neuralgia.*
- III. VAGL. *Paralysis; Death from Asphyxia.*
- IV. STOMACH. *Violent Emesis, with Hiccough; Inflammation.*
- V. LIVER. *Through Vagi, Increased Secretions; Inflammation.*
- VI. INTESTINES. *Venous Congestion; Constipation.*
- VII. KIDNEYS. *Slightly Diuretic. Uric Acid Increased.*
- VIII. HEART. { *Inhib. Card. Nerves, (1) Stimul., (2) Paralyzed.*
Ganglia Paralyzed; Blood-Pressure Lessened.
Pulsation Lowered 35 to 50; Greatly Weakened.
- IX. VASO-MOTOR NERVE CENTERS. *Paral.; Capillaries Dilated.*
- X. TEMPERATURE. *Greatly Lowered, 2° to 5° C.*
- XI. SKIN. *Diaphoresis. Slightly Anæsthetic. Erythema.*
- XII. EYES. *Mydriasis from Paralysis of Third Nerve.*
- XIII. EARS. *Auditory Nerve Paralyzed.*
- XIV. LUNGS. *Sthenic Congestion; Inflammation.*
- XV. SEXUAL O., FEMALE. *Intense Congestion.*
- XVI. MUCOUS MEMBRANES. *Catarrhal Inflammation.*

Cerebro-Spinal Nervous System.—The action of Veratrum viride upon the brain is to utterly prostrate its function, and thereby produce intense arterial capillary congestion. On the contrary, Belladonna produces its congestion by exciting the cerebral functions. In animals experimented upon with this drug by myself, the microscopical examination of the brain which was made by my friend Dr. C. Adams, revealed intense capillary con-

gestion of both the white fibrous structure and gray cineritious substance; there being more congestion in the cerebellum than in the cerebrum. We found great congestion of the pons. Nothnagel says: "The convulsive center is located in a limited space, on the floor of the fourth ventricle, in the pons Varolii." This solves the problem why *Veratrum viride* is so valuable in spasms of a congestive character. In puerperal convulsions that have for their origin some emotional cause, accompanied with excessive cerebral hyperæmia, no known remedy can equal the *Veratrum viride*. The same may be said of sudden congestive eclampsia of children. "On account of the violence of the convulsions, it has been asserted that *Veratrum viride* is a spinal excitant. The convulsions are, however, really of *brain*, and not of spinal origin, as they do not follow poisoning by *Veratrum viride* when the cord has been previously cut."—*Dr. H. C. Wood.*

Cord.—*Veratrum viride* contains two Alkaloids, *Jervia* and *Veratroidia*. Their action being so similar, I shall not hesitate to write them up together. This drug has a powerful depressant action upon the motor nervous system, generally producing complete paralysis of the whole motor apparatus; but, in some cases, violent spasms are prominent symptoms. The spasms are both tonic and clonic; frequently come on like galvanic shocks. "In frogs, as well as in the higher animals, poisoned with *Jervia*, there is a very marked diminution, and finally abolition, of reflex activity; and, as the functions of neither peripheral nerves nor muscles are interfered with, it is evident that the Alkaloid is an intensely powerful spinal depressant. The general symptoms produced by *Veratroidia* resemble those caused by *Jervia*; but it is decidedly more irritating than the latter, and always produces vomiting, and* occasionally purging. In poisoning by it, there is in most cases some muscular twitching, and finally marked convulsions; but neither of these are so severe and so repeated as in the case of *Viridia*. Death takes place from asphyxia, due to paralysis of the respiratory muscles. Upon the spinal cord, the peripheral nerves, and the muscles, *Veratroidia* acts very much as does *Jervia*, being a decided spinal depressant."—*Dr. H. C. Wood.*

Medulla Oblongata.—The most of the action of *Veratrum viride* is spent upon the medulla oblongata. Paralysis of its functions are prominently portrayed in all animals, and in men, poisoned with this drug. The medulla is the center that controls respiration; and no remedy interferes with respiration as a depressant

more than this. A marked feature of *Veratrum viride* is its action upon the pneumogastric nerve, paralyzing its functions and producing congestion and inflammation in every organ and tissue to which it is distributed; indeed, its therapeutic power in congestion and inflammation is mainly shown in the organs and tissues that are under the immediate control of the par vagum.

Nerves of Sensation.—The action of *Veratrum viride* upon the posterior portion of the cord is nothing like as marked as upon the anterior portion; but it does produce slight anæsthesia. When given in neuralgia and rheumatism, it allays the pain and hyperæsthesia with great celerity.

Muscular System and Fibrous Tissues.—The striped muscular fibers of animal life lose their power of contractility, and are profoundly prostrated. This muscular prostration is due to the paralyzing influence the remedy has upon the functions of the cerebellum and antero-lateral portion of the spinal cord. My experiments upon animals were too short to produce much structural change in the spinal cord; but I regret it was not examined with the microscope. I hope some one will finish what I have neglected. No remedy produces greater *relaxation* and prostration of the whole muscular system. In half an hour the animal would be completely prostrated and not able to move a limb, remaining in any position in which it was placed. I would call the particular attention of the profession to this *complete prostration and relaxation* of the whole muscular system. It acts upon the same gray matter of the cord that *Strychnia* does, affecting the cells, however, in a manner directly opposite to that of *Strychnia*; for *Strychnia excites*, while *Veratrum viride prostrates*. I believe no known drug, when given in *lethal* doses, is equal to *Veratrum viride* as an antidote for *Strychnia*; and I have the pleasure to know that I have saved one human life from death by *Strychnine* through the antidotal powers of this drug.

That the convulsions sometimes produced by this drug, proceed from the central nervous system, is proved by the fact, that in animals all the muscles are equally affected, and, even in experiments on animals when the arteries leading to the muscles have been ligatured before the administration of the poison, convulsions take place as usual. In convulsions and myalgia, *Veratrum viride* has proved of signal service, when given in lethal doses.

Mouth, Fauces and Œsophagus.—The yellow coating upon the tongue, and the bitter taste in the mouth, point to a func-

tional derangement of the liver. The motor force of the pharyngeal branches of the pneumogastric is so powerfully irritated as to throw the œsophagus into constant spasm, as shown by the frequent and long-continued singultus, and the constant sensation as if a ball were rising in the œsophagus. In my own proving of the remedy, spasm of the œsophagus was one of the most prominent symptoms produced. In animals, the microscopical examination of the mucous membrane of the œsophagus revealed intense congestion and inflammation of the tissue,—a fact well worth remembering; for there are but few remedies that cause inflammation of the œsophagus.

Stomach.—One of the most prominent effects of Veratrum viride is to produce intense congestion of the pneumogastric nerve, at its origin in the medulla oblongata, and through the whole length of the nerve, the microscope revealing its vessels perfectly gorged with blood. This explains the phenomena of the action of Veratrum viride upon all the organs to which the par vagum is distributed. *It is capable of producing inflammation in every organ under the control of the pneumogastric nerve; viz., œsophagus, stomach, liver, and lungs.* No remedy can produce more marked inflammation of the mucous membrane of the stomach. Through the filaments of the vagi, the mucous follicles of the stomach are greatly excited, so as to cause them to pour out an immense amount of ropy mucus. Its emetic power, causing nausea and long-continued vomiting, is from its irritating action, not only upon the filaments, but upon the whole, of the par vagum, and from inflammation, making the vomiting *neurotic* as well as gastric.

Poisonous doses are powerfully *emetic*, producing intense nausea and incessant attempts at vomiting, throwing up quantities of ropy mucus and bilious matter, with constant hiccough; absolute muscular prostration; faintness; vertigo; dilated pupils; loss of vision; semi-unconsciousness; weak, almost imperceptible, pulse; cold, clammy skin.

This was finely illustrated in the case of my own daughter, Mary L. Burt, when at the age of twenty-one months. She got hold of my pocket-case, and took about one drachm of the tincture. She could not have had the case more than five minutes before I discovered her; but in a few moments she commenced vomiting. I immediately gave her half a cup of coffee, then went for some Camphor, and returned in five minutes. Her jaws were then rigid, and nothing could be put into her mouth; pupils of

the eyes widely dilated; face blue; hands and feet cold; no pulse to be found at the wrist. Bathed her bowels and back with Camphor for a few moments, when she went into a spasm, with violent shrieks; body bent backward; arms rigid and thrown over her head; face livid; breathing suspended for several seconds. This lasted about two minutes. She remained easy for a few moments, and then went into another spasm similar to the first. I then placed her in a tub of warm water, which soon relaxed the whole muscular system. Vomiting kept up, with severe retching every few minutes for three hours, when it gradually subsided. The matter vomited was a white, ropy mucus. The interval between vomiting for three hours was not at any time longer than five minutes, and most of the time did not exceed one minute. She remained pulseless all the time, with a blue, hippocratic face, and hands and feet shriveled up, as if they had been in water for a long time. When she was not vomiting, she lay in a stupor, with the pupils of the eyes widely dilated. After three hours the pulse could be counted; it was thirty-six, and very feeble. In three and a quarter hours after taking the Veratrum, she went to sleep, and slept soundly for three hours, and then awoke well, except being a little weak.

The leading symptoms in this case were, constant vomiting of white, ropy fluid; dilatation of the pupils; comatose state of the brain; excessive muscular prostration; spasms; trismus; great congestion of blood to the lungs; blue, pinched, up hippocratic face, with cold nose, hands, and feet; no pulse for three hours.

Liver.—Through the filaments of the pneumogastric nerve, Veratrum viride produces congestion and inflammation of the liver. In animals poisoned with this drug, the microscope revealed the intra-lobular veins perfectly gorged with blood. It also greatly increases the secretion of bile. In bilious and intermittent fevers, where the poison centers upon the par vagum, and there is vomiting of bile, Veratrum viride will be found of great value, and the same with acute hepatitis.

Intestines.—Upon the intestines, its action is but slight; though, from its action upon the liver, we have more or less venous congestion of the bowels. It hardly ever acts as a cathartic; but, in some cases, it produces a copious watery diarrhoea. Its main action is to produce constipation.

Kidneys.—Here Veratrum viride acts as a mild diuretic, from increased blood-pressure. The solids of the urine are increased.

Heart.—The profound paralysis of the whole circulatory apparatus produced by *Veratrum viride*, demands our closest study. The most characteristic property of this drug, is to lessen the cardiac movements, and lower the vascular tonus of the arteries. Small doses first reduce the force, without much lessening the frequency of the pulse; but larger doses greatly lessen the cardiac pulsations, in some cases down to thirty per minute. "If any exertion be made during this stage of depression, the slow pulse will be suddenly converted into an exceedingly rapid one. The slow pulse is sometimes moderately full, but is always very soft and compressible. The rapid pulse is exceedingly feeble, small, and often thready, and may become imperceptible. Severe nausea and vomiting accompany or follow the reduction of the pulse-rate. That the latter is not due to gastric disturbance is, however, shown by the fact that it often precedes the stomach symptoms, and may exist without them. Thus, Prof. Percy states, that he has seen the pulse reduced to thirty per minute without nausea being induced. During the stage of depression, there is always decided muscular weakness and relaxation.

"In full therapeutic doses, it lowers the pulse-rate, both by a direct action on the muscle (*Jervia*) and by stimulating the inhibitory nerves (*Veratroidia*); it diminishes the force of the heart-beat by a direct influence on the cardiac muscle (*Jervia*), and produces a general vaso-motor paralysis (*Jervia*), more or less complete, according to the size of the dose. . . . Evidently, large doses of *Veratroidia* paralyze the cardiac inhibitory apparatus, while small ones stimulate it intensely. The paralysis is certainly peripheral. Whether the stimulation is centric or peripheral, has not as yet been determined. When enormous doses of *Veratroidia* are thrown directly on the heart by venous injection, they at once kill the cardiac muscle. . . . When artificial respiration is kept up, *Veratroidia* is powerless to reduce the pulse-rate. When the par vagum has been divided, artificial respiration being maintained, *Veratroidia* is powerless to reduce the pulse-rate; and, when the pulse-rate has been reduced by the drug in the uninjured animal, division of the par vagum is followed by an enormous rise in the number of cardiac beats per minute. These facts certainly prove that *Veratroidia* is a powerful stimulant to the inhibitory nerves of the heart. Moreover, I have found, that, when the spinal cord is divided so as to paralyze the antagonists to the par vagum, one-thirtieth of a grain of the poison will at once produce diastolic arrest of the heart's action; but if the pneumogastrics be now severed, and the repressive force

thus taken off, the relaxed, seemingly dead, viscus recommences its beat. The slow pulse of mild Veratroidia-poisoning becomes rapid when a large dose of the poison is injected. Further, after a large dose, division of the pneumogastrics has no effect upon the pulse-rate, and the most intense galvanic current applied to the peripheral ends of the divided nerves is powerless to affect the viscus."—*H. C. Wood, M. D.*

Vaso-Motor Nervous System.—Veratrum viride is a powerful depressant of the vaso-motor nerve centers, especially its Alkaloid Jervia. "Dr. F. Reigel has demonstrated that the rise of arterial pressure which occurs in asphyxia, is largely due to vaso-motor spasm. In Viridia-poisoning, asphyxia has very little influence upon the arterial pressure, because the vaso-motor centers are paralyzed. In Veratroidia-poisoning, the slightest intermission in the working of the bellows of the apparatus for artificial respiration, is followed at once by an enormous rise of the mercury in the cardiometer,—conclusive proof that the vaso-motor centers are not seriously affected. In estimating the physiological action of Veratroidia, it must be borne in mind that artificial respiration was maintained during the study of the action of the drug on the heart and vaso-motor centers; that its influence on the respiratory centers is so intense as to overbalance its cardiac action, and, when the animal is left to itself, to cause death before any decided influence has been exerted upon the heart. The action may be summed up as follows: It is a powerful respiratory poison, lessening at first the frequency of the cardiac beat by stimulating the pneumogastrics, but they soon lose all their control over the heart, owing to the powerful influences which the induced asphyxia exerts."—*H. C. Wood.*

Temperature.—Veratrum viride lowers the animal temperature very decidedly. "Aulmount asserts, as the result of his experiments, that in animals, from half an hour to two hours after the administration of such doses as would produce violent symptoms without killing, the temperature fell 2°, 3°, or even 5° C., and remained at this point for twenty-four hours."—*Wood.*

The reduction of temperature is one of the positive effects of this drug when given in acute inflammatory fevers.

Skin.—Upon the skin, Veratrum viride acts as a mild diaphoretic. In some instances, the perspiration is very profuse; but generally the skin is soft, moist, and very cool. The profound arterial depression causes the increased activity of the functions

of the skin; and the perspiratory glands are not specifically affected.

Eyes.—Veratrum viride has a marked and specific action upon the eye. Through its paralyzing influence upon the third nerve, it produces marked dilatation of the pupil. This mydriatic effect of paralysis of the circular fibers of the iris, has never, to my knowledge, been utilized. In surgical operations upon the eye, I would strongly urge a trial of this drug, especially of its Alkaloid.

Ears.—Veratrum viride produces paralysis of the auditory nerve, with singing noises in the ears, from its congestive action upon the brain, at the origin of this nerve.

Sexual Organs, Female.—Here Veratrum viride produces acute congestion, with its attending symptoms, as dysmenorrhœa with scanty menstruation; metritis, ovaritis, and mastitis; and, in the acute form of those diseases with marked sympathy of the par vagum, this drug has been of great value. Its true action upon these organs is not fully known.

Mucous Membranes.—Veratrum viride produces well-marked acute catarrhal inflammation of the mucous membranes of the nose, lungs, mouth, œsophagus, stomach, and gall-bladder.

Lungs.—No remedy in the Materia Medica produces such sudden and intense congestion and inflammation of the lungs as is caused by Veratrum viride, through its paralytic influence upon the motor filaments of the pneumogastric nerve. Twelve cats and three dogs killed with the Veratrum viride all had inflammation of the lungs of the most marked character. The microscope revealed intense congestion and a large number of the capillary vessels ruptured. Sections of the lungs were so completely hepatized, that, when thrown into the water, they immediately sank to the bottom of the vessel.

Upon the mucous follicles of the bronchial mucous membrane, it has a specific action, causing them to secrete an immense amount of mucus. This the microscope most beautifully illustrated, the smallest air-cells being completely filled with mucus. The abundant testimony, in all schools, that Veratrum viride will cure pneumonia during its first stages, is one of the fixed and positive facts in therapeutic medicine, which I have confirmed time and again.

Therapeutic Individuality.

Mind.—From sudden congestion, we have quarrelsome delirium; or great mental depression, and fear of death. The patient often in a semi-stupor, sometimes complete coma, as seen in puerperal convulsions; puerperal insanity.

"Puerperal mania; silent, suspicious; will not see her physician, he seems to terrify her; fears being poisoned; sleepless, can hardly be kept in her room; depression of spirits."—*Hg.*

"Mental confusion; loss of memory; stupefaction; vertigo; cerebral hyperæmia; insanity from cerebral congestion."—*Hg.*

Head.—Intense cerebral congestion, feeling as though the head would burst open; with nausea and vomiting

Sudden spasms from congestion of blood to the head.

"I know of no drug, not even Belladonna, so useful in affections of the head, when they are of a *congestive* character. It is most useful when the congestion arises from *plethora, vascular irritation, coup de soleil, alcoholic stimulants, teething in children*, and especially when it occurs from suppressed discharges, with a feeling of fullness; weight or distention of the head; giddiness; intense headache; fullness and throbbing of the arteries; stupefaction; increased sensitiveness to sound, with buzzing, roaring, etc., and double vision."—*Dr. Hale.*

Can hardly hold the head up, from paralysis of the muscles of the neck; pale, cold face; livid color of the face in convulsions, nose looks pinched, cold, and blue, with nausea and vomiting.

In eclampsia of children from sudden cerebral congestion, we have no remedy that will equal this; but it must be given in nauseating doses to get its best and lasting effects.

Cerebro-spinal meningitis, in its first stage, that has come on with great suddenness, with great cerebral congestion, nausea and vomiting; hard, full, slow pulse and marked opisthotonos.

In acute meningitis and cerebritis, in the first and active stage of inflammation; the congestion is so great that the patient is delirious, and often insensible; face purple; throbbing of the carotids; sometimes severe convulsions set in, and death seems imminent; from intense heat, or over-exertion.

Congestive headache from suppression of the menses, or sick-headache; menses scanty and pale; the intense congestion is almost apoplectic, accompanied with violent nausea and vomiting.

Eyes.—Dimness of vision from congestion of blood to the base of the brain, with nausea and vomiting.

Dilated pupils, with dimness of vision; green and red circles around the candle; twitching of the eyelids.

Loss of sight, from paralysis of the heart, with great faintness.

Paralysis of the eyelids; complete ptosis.

Ears.—Ringing in the ears from congestion of blood to the head; very sensitive to noise; paralysis of the auditory nerve, producing deafness.

Neuralgia of the auditory nerve. (Apply locally.)

Face.—Flushed from cerebral congestion; convulsive twitching of the face; cold and bluish, covered with cold sweat; nose pinched, cold, and blue; paleness around the *alæ nasi*, or copious secretion from the nostrils; Hippocratic face.

Dry mouth and lips all day, with flushed face.

Mouth.—Copious secretion of saliva, with nausea.

Tongue coated yellow, and feels as if it had been scalded.

"Tongue yellow at the sides, with a red streak along the center, and inclined to be dry."—*Dr. W. S. Searle*. [Bilious typhoid.]

Throat.—Frequent and long-continued hiccough, with a constant sensation as if a ball were rising in the *œsophagus*.

"Dryness and heat in the throat; severe hiccough; burning in fauces and *œsophagus*, with constant inclination to swallow."—*Hg*.

Acute inflammation of the whole length of the œsophagus, with constant hiccough; nausea and violent vomiting.

Acute spasmodic stricture of the *œsophagus*.

Stomach.—*Nausea and vomiting*. Sudden nausea, with violent vomiting and hiccough; violent and long-continued vomiting, without much nausea; vomiting of food, and then large quantities of glairy mucus; the least quantity of food produces violent vomiting, from acute gastritis.

Obstinate vomiting from inflammatory cerebral disease.

Vomiting of bile in bilious fevers, or eruptive diseases.

Vomiting of bile and blood, in yellow fever; great thirst.

"I consider the *empty, painful retching, with ejection of a little bloody, frothy mucus*, as the chief indication."—*Hale*.

Excessive thirst, but drinking brings on the vomiting.

A capital remedy for gastralgia and spasm of the stomach; and no remedy produces more marked inflammation of the gastric mucous membrane, with great thirst and violent retching.

"Excruciating pain covering a space the size of the hand, in the lower part of the stomach; the pains culminate every five

minutes in severe vomiting; the pain is drawing, twitching, as if the stomach was tightly drawn against the spine, causing pain in the dorsal region."—*Hg.*

Liver.—Acute congestion in hepatitis, with constant nausea and vomiting of bilious matter; first stages has pain in the hepatic region, passing down to the groin, of a dull aching character, especially in the region of the gall-bladder, accompanied with intense fever, hard pulse, etc.

Abdomen.—Neuralgic pains in the abdomen; heavy aching pains in the umbilicus; pain and soreness across the abdomen just above the pelvis.

Pain in the hypogastrium, with much tympanitis.

"Enteritis, with high fever, great vascular excitement; vomiting; dark, bloody stools."—*Hg.* [Peritonitis.]

Stools.—Stools mushy; or copious and watery, and sometimes bloody; but constipation is more apt to be present in diseases that call for *Veratrum viride*.

Urine.—Urine first increased, and then diminished; the solid constituents are increased, specific gravity diminished. In congestion of the kidneys attending the last stage of pregnancy, when uræmic convulsions are threatened, or really present, this drug will do great good.

Sexual Organs, Male.—Severe neuralgia of the testicles.

In acute orchitis that takes on an erysipelatous nature, the local and internal use of this drug will be of great value.

Sexual Organs, Female.—In many congestive diseases of these organs, it will be found of great use. Dr. Peterson says he has relieved hundreds of cases of menstrual colic with this remedy, in drop doses of the tincture; and I can testify to the same facts, but not in so many cases. With the menstrual colic, or dysmenorrhœa, there is much nausea and vomiting, with plethora, and much cerebral congestion.

"Menstrual colic, with great congestion and troublesome strangury."—*Hg.*

In *acute metritis* and *ovaritis*, attended with a high grade of fever, no remedy is more efficient. It equals *Apis* in *pelvic cellulitis*; in fact, to treat a case of this grave disease successfully without these two remedies, is next to impossible. They often prevent the suppuration.

In puerperal peritonitis, or metritis, with gastric symptoms, and high fever, it is invaluable. Dr. Ludlam has great confidence in it to prevent puerperal fever, and inflammation of the *mammæ*. In any congestive disease of these organs, where we have reflex symptoms that center upon the *par vagum*, *Veratrum viride* is one of our sheet anchors. Dr. Ludlam uses it to increase the secretion of milk. I find it of signal service in acute mastitis, with high febrile action, and much tumefaction. Applied locally as well as used internally.

In rigid os uteri during labor, nauseating doses will relax and so soften it that labor will be much facilitated.

Nausea and vomiting during pregnancy; cerebral congestion.

In *puerperal convulsions*, no known remedy can equal *Veratrum viride*, if given in lethal doses, so as to produce *complete acinesia*. Not only will it arrest the eclampsia, but the intense congestion of blood to the brain, with its blue, livid face and profound coma, or wild delirium, will soon cease when the acinesia is complete. Puerperal mania has often been cured with this drug.

In hysterical convulsions, with cerebral congestion and gastric symptoms, large doses will arrest the convulsions; but, to eradicate the tendency, we have much better remedies.

Respiratory Organs.—We have an abundance of testimony in all schools, that *Veratrum viride* will cure *pneumonia*, especially the sthenic form, during the first or congestive stage, clear up to the commencement of suppuration. Prof. Lee says: "*Pneumonia* is the disease in which *Veratrum viride* is particularly indicated. It seems to have more controlling power over this than any other disease, reducing the inflammation, and favoring expectoration in a few hours. In some instances, vomiting is induced of a tough, viscid mucus; the pulse now rapidly declines, if not affected before, the breathing becomes very easy, and the patient falls quietly into an easy sleep, with perhaps a gentle perspiration. The dose now is to be managed so as to sustain the depressed circulation. I find that in pneumonia it is better to reduce the pulse at once. The inflammation being in a degree arrested, the lung is saved from the more severe consequences of the second stage, or that of red hepatization, the concrete fibrinous exudation being caused by an inflammatory action. Thus, the cause being in part removed, the exudation is greatly arrested, and convalescence commences at once."

For *vesicular bronchitis*, it is a remedy of great value, in the sthenic form, with high fever, nausea and vomiting, etc.

In *asthma*, lethal doses will often do wonders, where there is great lung and cerebral congestion; much excitement; nausea, vomiting; loose, rattling, wheezing cough. To get the desired result, doses large enough to produce nausea are necessary. It reduces the respirations more than one-half; and, from the specific action it has on the vagi, we see at once why this drug is so great a palliative.

The cough is short, dry, hacking, or loose, rattling, aggravated by going from a warm room into cold air.

Heart.—From its irritating effect upon the vagus, the heart's action is lessened to a wonderful degree, often to thirty beats per minute. In carditis and pericarditis, there is burning and pricking in the cardiac region; the pulsations are loud and strong, with great arterial excitement. In inflammatory fevers calling for this drug, the pulse is full, hard, and bounding; becomes softer under its action; sometimes irregular, intermittent. In rheumatism of the heart in plethoric people, with great arterial excitement.

Dr. Scudder says, that, in *small doses*, it is as much of a tonic as Digitalis is in large; but, if given in too large doses, it will produce cardiac debility, with fainting and collapse.

Sudden cardiac syncope; comes on suddenly in the healthy.

Dr. Halé says it has done him good service in *hypertrophy with dilatation*, used as a continuous remedy, and not as a palliative; but I believe that Digitalis will far excel this drug in this distressing malady.

In diseases with excessive action of the heart, with pulse *full and hard*,—and the pulse of this drug is always *full and hard*,—we have no known remedy that will soften and bring it down to normal and below normal equal to the Veratrum viride.

Neck and Back.—Much aching in the back of the neck, and shoulders; can hardly hold head up. (Cerebro-spinal meningitis.)

Acute inflammation of the spine; head drawn backward.

"Opisthotonos; arterial excitement; hands and feet cold; shocks in the limbs; congestion of brain and spine; loss of consciousness."—*Hg.*

Myalgia of the muscles of the back. (Locally.)

Limbs, Upper.—Convulsions of the arms and hands.

Flying pains in the joints; rheumatic inflammation.

Paralysis; tingling of the limbs, from cerebral congestion.

Limbs, Lower.—High fever, with acute rheumatism of the joints, but more especially the muscles.

Much pain in the hip-joints and about the condyles.

Convulsions of all the limbs; trembling of the whole body; twitching and contortions of the body; cramps in legs and fingers, the ankles feel as if dislocated.

In chorea, this drug has made some brilliant cures, in acute, congestive, rheumatic cases, given in pretty large doses.

Skin.—Much itching and burning of the skin; high fever; tingling of the skin; eruptions with intense fever.

Scarlatina, with intense arterial excitement; congestion of the brain, with violent nausea and vomiting.

Measles during the febrile and eruptive stage; pulmonary congestion, and impending or actual convulsions.

Small-pox before the eruption; cerebral congestion and excessive nausea, vomiting, and great prostration.

Skin, cold, clammy, bluish, insensible; shriveled as in cholera.

All eruptive fevers, with excessively high temperature; hard, full pulse, and a tendency to congestion of brain, chest, or stomach.

In erysipelas, especially if cerebral symptoms should set in from metastasis of the inflammation to the brain, with *hard*, very *full* pulse. (A lotion of thirty drops to a pint of water has often done signal service.) Cellulitis is well marked, with much swelling and redness.

Fever.—In ephemeral and irritative fever, with intense congestion of the brain; pulse excessively high, *hard*, and *full*, with headache, vertigo, dimness of vision, nausea, vomiting, and much restlessness, with thirst, and myalgic symptoms, this is an excellent remedy.

In septic fevers, Veratrum, as a rule, is not often called for. It has no septic action upon the blood, and is therefore counter-indicated in these diseases; but, when these fevers center upon the brain, lungs, heart, or spine, Veratrum will often be found of great value to relieve the intense congestion.

Coldness of the whole body; cold sweat on face, hands, and feet, in choleraic diseases; nausea and violent vomiting predominates; weak, small pulse.

Bilious fever; headache; tongue coated thickly, yellow; vomiting of bile; loss of appetite; great thirst, and dry skin.

Rheumatism, muscular form (locally and internally); inclination to profuse diaphoresis, and great prostration.

Profuse cold, clammy perspiration, rules Veratrum viride.

Aggravation.—Morning and evening.

Amelioration.—Bending forward and lying down.

ZINCUM.

Zinc.

An element. Triturate up to the 3d centesimal, and then dissolve one grain with 50 drops of distilled water and 50 drops of Alcohol.

Antidotes.—Camph., Hepar, Ignat., Albumen and Milk, and Carbonates.

Through the cerebro-spinal system, Zinc has six special centers of action:

- I. CERE BRO-S. S. *Tonic; Depression; Sensory and Motor Paral.*
- II. STOMACH. (*Sulphate.*) *Powerful Emesis.*
- III. INTESTINES. *Slow Digestion; Flatulency; Constipation.*
- IV. BLOOD. *Hydræmia; Venous Hemorrhages; Varices.*
- V. CIRCULATION. *Vaso-Motor Spasm.*
- VI. SEROUS MEMBRANES. *Inflammation; Dropsical Effusions.*

Cerebro-Spinal System.—Zincum has a powerful tonic action upon the peripheral extremities of the motor and sentient nerves, and corresponds to diseases of the nervous system as Iron does to those of the blood. The depression of nutrition is sympathetic,—and not from its direct action upon the organic nervous system. Wibmer says: “The action of small doses, if their use is continued beyond a certain period, may produce a certain cachexia, with complete prostration of the nutritive functions. The intellectual faculties are likewise impaired, the beats of the heart are slow and feeble, and the power of locomotion and strength of body are enfeebled to a high degree.” This cachexia greatly resembles that of Lead.

Stomach.—The Sulphate of Zinc is a very prompt and efficient emetic, fifteen grains acting without much preliminary nausea or depression. But, if too long continued, it may produce ulceration of the mucous membrane, which is covered with a tough mucus. In Chloride of Zinc poisoning, the appearances of corrosion are very marked, and cicatrization of the mucous membrane of the stomach is seen, and contraction of the pylorus has been produced.

Chronic Zinc-poisoning which occurs in factories is very similar to Lead-poisoning, causing dyspepsia, emaciation, colic, with constipation, but more often diarrhoea, with muscular pains and contractions. Sometimes intestinal catarrh, with marasmus, reaches a high grade; and in some, epilepsy is produced.

Kidneys.—There is slight congestion, and albuminuria from increased blood-pressure. In some, the urine is loaded with the urate of ammonia, with a small quantity of sugar.

Blood.—Here Zinc produces hydræmia, venous congestion, hemorrhages, and varices. It inhibits the action of the respiratory organs, and thereby favors venous stagnation and congestion. Varices upon the extremities are a marked effect of the drug.

Vaso-Motor System.—The action of Zinc upon this system occurs in spheres especially in connection with the cerebral nerves, as shown by the heat in the head and face, when the vagus or trigeminus is involved.

Skin.—Here Zinc disturbs and depresses the nutrition, restricting the secretions, and producing dryness, shrinking, thickening and exudation in the interstitial tissues, with nodes, fissures, rhagades, and suppuration.

Serous Membranes.—Zinc acts upon the serous membranes of the hemispheres, and the neurilemma, producing inflammation and dropsical effusions; and it is a valuable remedy in hydrocephalus and dropsical effusions.

Therapeutic Individuality.

Head.—Cerebral exhaustion, with mental and physical depression, from anæmia of the brain; complete neurasthenia; softening of the brain, with impending paralysis.

"The drug has been mainly used as a remedy for states of cerebral depression; chronic headaches, and melancholia or chronic atrophy of the brain in the insane."—*Hughes*.

"Only indicated in cerebral affections connected with exanthemata where the *vis medicatrix nature* is too weak to throw the poison to the surface."—*S. Lilienthal*.

"Child cries out during sleep; when awakened, expresses fear, and rolls its head from side to side."—*G.*

Cholera infantum; hydrocephaloid; spasms and paralysis.

"Loss of thought, and soporous condition of the mind; forgetful of what has been done through the day."—*Hah.*

Excessive and violent vertigo; can not stand; more in the occiput, with nausea; faintness, and trembling of the hands.

Chronic sick-headache; great weakness of sight; sticking in the right eye; somnambulism, crying in sleep, with much pain and tired feeling in the nucha.

"Pressure on root of nose, as if it would be pressed into the head; hemicrania, worse after dinner; tearing pains in the temples; internal headaches, worse from drinking wine, in a warm room, and after eating."—*Hg.*

Great soreness of the scalp, loss of hair; complete baldness.

"Alternate redness and paleness of face, with vertigo."—*Hg.*

Ear.—Neuralgia of the middle ear, the pains are tearing and cutting, and often accompanied with suppuration.

In otorrhœa with discharge of fetid pus, use the Sulphate locally; or in old, obstinate chronic cases, the Oxide does nicely.

Eyes.—Very useful in diseases of the conjunctiva, with burning, biting pains, worse evenings; much lachrymation and photophobia; lids agglutinated in the mornings. The Sulphate is often very efficient in obstinate conjunctivitis, applied locally, two grains to one drachm of rose-water.

Syphilitic iritis, with severe nightly pains; profuse lachrymation, scalding the parts, and dull pains in the balls.

Several well-marked cases of pterygium covering one-half of the pupil, growing rapidly, with great pressure across the root of the nose, have been cured with Zinc. In cases of granular lids of long duration, use the Sulphate locally.

Amaurosis; eyes very sensitive, in cerebral affections.

Upper lids feel heavy as if paralyzed, in brain affections.

Face.—Face pale, in chronic diseases, with much emaciation.

Tearing pains in the malar bone, extending into the jaw.

Lips dry and cracked, in chronic indigestion.

Neuralgia of the fifth nerve, worse from touch and evenings.

Mouth.—Frequent drawing toothache, especially if decayed.

Tongue dry; feels heavy; don't want to talk; covered with vesicles.

Gums bleed from the slightest touch; blisters on tongue.

"Copious secretion of saliva; crawling in the cheeks."—*Hah.*

Much dryness of the throat in the evening; it feels raw and sore; accumulation of mucus in the throat that causes constant hawking.

Stomach.—Taste of blood in the mouth ; sweetish rising from the stomach, with a clean, red tongue.

"Sudden oppression of the stomach ; she has to loosen her clothes ; great greediness when eating ; can not eat fast enough, from canine hunger ; terrible heartburn after taking sweet things ; much nausea ; vomiting, and fidgety feet ; abdomen distended ; dry, hard stool."—*G.*

"Insatiable hunger ; no appetite for breakfast ; very thirsty."—*Hg.*

"Sour, empty eructations after dinner, or empty eructations."—*Hah.*

"Aggravation of the nausea, and headache from wine."—*J. H. Smith.*

Burning in the epigastrium ; vomiting of mucus and blood, with tearing pains in the pit of the stomach.

Abdomen.—"Liver enlarged ; hard and sore to the touch ; feet swollen ; vomits mucus and blood."—*Hg.*

"Flatulent colic, worse from wine, evening, or during the night, and at rest ; loud rumbling and rolling, with retraction of the abdomen similar to Lead colic ; hard, dry stool."—*Hg.*

Frequent emissions of fetid flatus without relief.

Stool.—Great difficulty in expelling the stools, which are insufficient ; very dry and hard, with much flatulence.

Cholera infantum ; stools involuntary, with stupor, or hydrocephaloid following infantile diarrhœa.

Urine.—Violent pressure on the bladder ; passes urine with great difficulty ; very turbid, or yellow urine.

"Involuntary urination while walking, coughing and sneezing."—*Hg.*

Urine voided at night is very turbid in the morning.

Sexual Organs, Male.—Increased sexual desire, with long-lasting strong erections ; or complete impotence.

The testicles are very painful and drawn up ; neuralgia.

"Spermatorrhœa ; emissions without dreams ; face pale, sunken, blue rings around the eyes ; atrophy of the testicles ; orchitis from a bruise, with drawing pains ; loss of hair."—*Hg.*

For chronic gonorrhœa and gleet, an injection of eight grains of the Sulphate to eight ounces of rose-water, or one grain of the Chloride to four of rose-water, is often very efficient.

Sexual Organs, Female.—Increased sexual desire ; irresistible desire for onanism ; or complete loss of sexual desire.

"Menses too early ; too profuse ; lumps of clotted blood pass away when walking ; during the menses, heaviness of the limbs, with violent drawing around the knees, as if they would be twisted off. The flow of the menses always relieves all her sufferings, but they return again soon after their cessation."—*G.*

"A constant distressing, boring pain in the left ovarian region, partially relieved by pressure or during menstruation, but returning again soon after the flow."—*G.*

"Uterine ulcers, have a bloody, acrid discharge ; but the ulcer itself is rather destitute of feeling ; an exceptionally violent and obstinate pain in the brain sometimes accompanies this ulcer, and is often intermittent."—*G.*

Leucorrhœa of mucus and blood ; acrid and excoriating.

"Pruritus vulvæ, causes masturbation ; varicose veins of external genitals, with fidgety feeling of the feet."—*Hg.*

Mammæ swollen and sore to the touch ; sore nipples.

Air-Passages.—Flatulent asthma and dyspnœa.

Violent, dry, spasmodic cough ; cough with expectoration of mucus and blood ; aggravated before the menses.

"Spasmodic cough when children put their hands to the genitals as soon as they cough ; worse after sweet things."—*G.*

Burning in the chest ; pain as if cut to pieces, with constrictive sensation ; emptiness behind the sternum.

Heart.—Irregular spasmodic action of the heart from indigestion and excessive flatulence ; violent palpitation of the heart from spinal irritation.

Neck and Back.—Great weariness in the nape of the neck, especially evenings ; the neck is very stiff.

For spinal irritation, with great prostration of strength, it is one of our most useful remedies. Burning in shoulders.

"Twitching in the back or any part of the body, from sensitiveness of the spine to the touch. (Zinc high)."—*Dr. McGeorge.*

"Burning along the whole spine, worse when sitting ; pain in small of the back, relieved by walking."—*Hg.*

Limbs, Upper.—Paralytic feeling in the arms in brain diseases ; paralysis from cerebral hemorrhage.

"Weakness and trembling of the hands when writing ; skin dry and cracked, even in dry weather ; chilblains."—*Hg.*

Chronic articular rheumatism, in weak, emaciated people.

Limbs, Lower.—Great weakness of the limbs; chronic neurasthenia; formication and cold feet at night.

One of the most characteristic symptoms of Zinc is an *incessant*, constant fidgety feeling of the lower extremities; must move the feet constantly.

Varices in the legs; burning pains; fidgety feet.

Paralysis of the feet from spinal or chronic nervous disease, as softening of the brain; cerebral hemorrhage.

"Feet are sweaty and sore about the toes; fetid suppressed foot-sweat, with much nervous excitement."—*Hg.*

Chilblains, worse from friction; cold feet at night.

"Spasms, child cries before the attack; fever; restlessness; fidgety feet; pale during teething."—*Hg.*

Excellent for hydrocephaloid after cholera infantum, with spasms; great emaciation, and prostration.

Twitchings in various muscles; the whole body jerks during sleep; after choleraic diarrhoea.

Skin.—Excellent in exanthematic fevers; brain exhausted; not able to develop the eruption; fever in flashes, or violent convulsions from suppressed eruptions.

Rhagades, bad even in mild weather; itching in the joints; sudden itching here and there; dry herpes, or neuralgia following herpes zoster; pain under skin.

Edema and general anasarca of the cellular tissue.

Dropsical effusions of all the serous cavities.

An ointment of the Oxide of Zinc, made with Cosmoline, is the most useful application in the *Materia Medica* for old, indolent ulcers and many cutaneous affections.

Aggravation.—After dinner; from wine; evenings; in bed; indoors.

Amelioration.—In open air; while eating, and from heat.

CHLORAL.

Hydrate of Chloral.

Chemical Preparation. Triturations and Alcoholic attenuations. Two parts by weight pure Chloral dissolved in nine parts by weight of Alcohol.

Antidotes.—Strychnia, Atropia, Ammonia, Picrotoxine, Physostigma, Galvanism, Alcoholic Stimulants.

Synergists.—Opium, Alkalies, and Anæsthetics deepen the action of Chloral.

Through the cerebro-spinal system, Chloral has nine special centers of action:

- I. BRAIN. *Anæmia; Hypnotic; Profound Sleep.*
- II. SPINAL CORD. *Lessened Reflex Irritability; Anæsthesia.*
- III. VAGI. *Paralysis of the Respiratory Center.*
- IV. VASCULAR SYSTEM. *Vaso-Motor Paralysis.*
- V. TEMPERATURE. *Rapid Loss of Temperature.*
- VI. HEART. *Paralysis; Arrest in Diastole.*
- VII. SKIN. *Urtica.; Papulæ; Purpu.; Petech.; Ulcers; Blisters.*
- VIII. BLOOD. *Corpuscles Enlarged; Hæmoglobine in Solution.*
- IX. ANTISEPTIC.

Brain.—Chloral's principal action, in an ordinary medicinal dose (fifteen to thirty grains), is spent upon the brain, producing quiet sleep, greatly resembling that of natural sleep, calm, dreamless, and refreshing. The patient may be easily aroused to take food, but quickly and without difficulty falls asleep again; and, as a rule, no unpleasant effects follow. This sleep is due to its direct action on the nervous structure of the brain, and also to the anæmia it produces in this organ. Thus, Dr. W. H. Hammond finds that at first Chloral congests the retina, but in five or ten minutes the opposite condition commences, and continues till the retina assumes a pale pink color. As the retinal circulation corresponds with the cerebral, he concludes that Chloral affects the brain in the same way as it does the retina. While the brain is congested, there is some mental excitement; but, as the vessels contract, drowsiness supervenes; and, when this wears off, the retinal and cerebral vessels enlarge till they assume their accustomed size.

Large, fatal doses produce stertorous breathing; the eyes are set and glassy, pupils insensible to light and contracted; conjunctiva congested; frothy mucus flows from the mouth; motion

of the heart feeble but rapid; blood settles under the finger-nails; purple spots on the side on which they lie; complete anæsthesia of the skin; extremities cold; finally the brain becomes completely paralyzed; then the spinal cord, and lastly the respiratory muscles and heart. After death congestion of the meninges and substance of the brain and cord and of the lungs is commonly found, and the blood coagulates with difficulty.

Spinal Cord.—Here we have paralysis and loss of reflex action. Labbee found that the muscles after death responded perfectly to galvanism, and Rajewsky found that the motor nerves are in no wise affected by toxic doses of Chloral. All of this knowledge points directly to the spinal cord as the center of Chloral's action producing paralysis. Before this paralytic stage is reached, Rajewsky affirms, that in the frog there is a period of increased reflex activity; and stimulation of the spinal ganglia shows that they are more susceptible than normal.

Vagi.—The functions of the pneumogastric nerve are very materially affected by Chloral; as its main action is spent upon the cerebral origin of the vagus nerves, which is shown by the number of respirations per minute. It causes them to become slow and full; and, when toxic doses are taken, this action becomes more and more marked, until, finally, the rhythm is very much affected, and the respiration grows very irregular, and sometimes very rapid and shallow, until at last it ceases. As these phenomena occur equally after section of the vagi, the influence of Chloral must be exerted upon the respiratory center at the base of the brain. The stertorous breathing is a marked feature after toxic doses.

Circulation.—The paralyzing effects of Chloral on the center for vascular nerves are of great significance. In experiments on animals this paralysis is manifested by an enormous diminution of the arterial blood-pressure.

"According to Demarquay, where Chloral has been administered to animals, there is evident enlargement and engorgement of all their blood-vessels; and Rajewsky states that he has found sinking of the blood-pressure in rabbits from small as well as large doses of the drug. In man, Bouchet has obtained sphygmographic traces, which he thinks indicates a primary increased arterial tension. Nancias, of Venice, has found the tension normal; but Austie and Andrews confirm the results of Bouchet when small doses are employed. After very large doses, according to both Andrews and DaCosta, the tracings indicate very

much lessened arterial pressure. Whatever may be the effect of small doses (and the point needs further investigation), it seems well made out, that, both in man and animals, by large doses the blood-pressure is very much lessened, probably in part owing to vaso-motor paralysis, but in the largest measure to an action of the drug on the heart. Various observers state that there is in man and the lower animals at this time slowing of the pulse, which, according to Rajewsky, is altogether independent of the inhibitory nerves in the frog and rabbit, occurring equally after as before their section. When toxic doses have been employed, the heart, after numerous pauses, is finally arrested in diastole. This arrest appears not to be muscular in its origin; for both Rajewsky and Labbee state that galvanic stimulation will produce a single full beat; and the latter author affirms that, when the cord has been previously cut in the frog, the heart will continue to beat for hours. Further, Labbee states that, when powdered Chloral is placed upon the frog's heart freely, there results a marked slowing, but no arrest of its action. It would seem, therefore, most probable, that Chloral influences the heart through the centers at the base of the brain. In poisoning in man, the pulse has toward the last been very feeble, generally rapid and irregular, and in some cases in which recovery has occurred it has been absent for a time."—*Dr. H. C. Wood.*

Vaso-Motor System.—Here Chloral has a paralyzing influence, which is shown by the great diminution of the arterial blood-pressure in man and animals. Almost all the symptoms of chronic Chloral poisoning may be referred to the anomalies of the circulation, which are brought about by the paralyzing influence of the Chloral on the vaso-motor center, as shown by the bed-sores, petechiæ, etc.

Temperature.—Chloral produces a most remarkable fall of temperature, in both man and animals. Dr. Richardson, of London, has seen it fall 6° F. in a rabbit which recovered. Bouchet has noticed a fall of 2° C. in an infant; and many others have noticed the reduction of temperature in man after therapeutic doses. Dr. Hammarsten has found that the fall of temperature is very rapid (6° C. in an hour), and that it is dependent upon diminished production of heat, since it occurs equally in animals well wrapped up and laid in a warm place. Many think the fall of temperature is due to surface evaporation produced by the dilated cutaneous vessels, from vaso-motor

paralysis. Dr. L. Brauton finds, that, after large doses of Chloral, the temperature falls till it can no longer be measured by an ordinary clinical thermometer.

Blood. — The red blood-corpuscles become enlarged, misshapen, and deprived of their elasticity. The plasma of the blood becomes colored red, from hæmoglobine in solution, and even the urine contains blood-coloring matter, and the blood is found charged with only one-half of its oxygen; it coagulates with difficulty.

Skin. — Through the vaso-motor nervous system, the skin is found to be prominently affected by this poison, as shown by the various forms of exanthems; as, urticaria, papulæ, erythema, petechiæ, purpura, extensive bed-sores, deep ulcers from mere circumscribed redness and swelling of the skin, with the formation of blisters on the trochanters, knees, knuckles, tips of fingers, and even on the ears and face; erythematous blush, covering almost the entire body, with hyperæmia of the conjunctiva and of the retina,—all of which vanish as soon as the Chloral is left off.

Antiseptic. — Chloral has considerable antiseptic power, and is an excellent preservative of animal texture. It acts well as a dressing to ulcerated surfaces, not only removing the fætor of the discharges, but lessening the pain; and it has been successfully employed, in solution, for the preservation of anatomical preparations.

Therapeutic Individuality.

Brain. — This is the most valuable *hypnotic* known in diseases of the brain and nervous system. Cases of *sleeplessness*, due to mental or overwork, anxiety, physical fatigue, are entirely relieved by fifteen or twenty grains of Chloral. The refreshing sleep thus obtained is so pleasant and alluring that the Chloral habit is often formed; consequently its excessive or too frequent use should be guarded against. In *delirium tremens*, where the delirium has succeeded to a recent debauch, no hypnotic is so uniformly successful. In old, worn-out drunkards, it often is injurious, producing violent excitement, instead of quiet sleep; and in large doses in these old cases, with fatty degeneration of the heart and arteries, Chloral may produce death. In *insanity*, *acute mania*, *acute melancholia*, *puerperal mania*, and *general paralysis of the insane*, in which wild delirium and wakefulness are prominent symptoms, hypnotic doses of Chloral have done

more good than any other known remedy. It gives quiet sleep at night, and is a soothing agent during the day. They leave off their destructive habits, and gain in strength and weight. It checks the desire for self-injury; melancholic patients become more cheerful; the appetite is increased, and the action of the bladder and bowels improves.

"Chloral is a remedy of great value in *sea-sickness*. From 15 to 20 grs. every four hours, the recumbent posture for a short time, and suitable nourishment, are the most effective means we now possess for this troublesome disorder. In some cases of *morning sickness*, with much dizziness, faintness, repugnance to food, and but little vomiting." — *Bartholow*.

In *cerebral congestion*, as in reaction from previous anæmia, Chloral rivals the Bromides, if there is great heaviness of the head, with a feeling of compression as if the head was in a vice; much pain in the forehead and occiput; aching and redness of the eyes, photophobia and illusions of vision. These cases are often found in children to follow cholera-infantum, and in adults colliquative diarrhœa.

For wakefulness caused by severe pain, Chloral is of but little value. It can only relieve pain by suspending the functions of the cerebrum, which will require dangerous doses.

Eyes. — It will often be found of great value in acute conjunctivitis, with red, injected, blood-shot eyes; lids much swollen; itching and burning; eyeballs feel too large, with profuse irritating lachrymation. In some cases of granulation and ulceration of the lids and cornea give one grain of the crude drug *ter die*.

Asthenopia, ocular hyperæsthesia, photophobia, etc.

Mouth. — *Traumatic odontalgia* has often been cured with Chloral. If the teeth are decayed, clean out the cavity and fill it with the crude salt.

Sexual Organs, Male. — For *chordee* during gonorrhœa, fifteen grains, taken at bed-time, is an excellent remedy; and it has cured many cases. It is an excellent injection in gonorrhœa. Chloral-eaters are said to lose their sexual desires; and it acts well in spermatorrhœa in plethoric, active temperaments. In *incontinence of urine*, it removes the spasmodic action of the detrusor vesicæ, and thus cures spasmodic cases.

Sexual Organs, Female. — For *dysmenorrhœa*, given in doses of from ten to fifteen grains, Chloral is an excellent remedy. It softens and relaxes the os uteri, thereby giving great relief.

Labor.—Very great relief is afforded by Chloral to the irregular pains of the first stage of labor, which cause much suffering, but do not advance the case. The *rigid os* and soft parts are overcome, and exhaustion prevented, when given so as to procure sleep. Dr. E. Lambert recommends Chloral in parturition in fifteen-grain doses every quarter of an hour until the patient falls asleep; stating that this treatment does not weaken the uterine contractions, while it prevents pain, and ensures calm repose after delivery; and Dr. Playfair thinks that Chloral acts far better than Chloroform inhalations, as Chloral does not lessen the strength of the contractions, whilst it greatly lessens the suffering. Moreover, it is chiefly applicable at a period when Chloroform can not be used; that is, towards the termination of the first stage, before the complete dilatation of the os. The patient falls into a drowsy state,—a sort of semi-sleep. He gives it in fifteen-grain doses, and repeats the dose in twenty minutes, leaving its subsequent administration to circumstances. For after-pains, in nervous-hysterical subjects, Chloral is excellent. In *puerperal convulsions* of a congestive character, in twenty-grain doses, it will arrest the convulsions. At the *critical age*, with *severe flushings* and excited circulation; contraction of the pupils; the face a dark scarlet color, from the roots of the hair to the ramus of the lower jaw, including the eyes, persistent under pressure, and blotchy in places, extending over the neck and chest.

Hysteria.—In the uncontrollable nervous agitation and spasms of hysteria, Chloral, given in fifteen-grain doses, will arrest the paroxysm sooner than any other known remedy.

Chorea.—"Chloral is an efficacious remedy in those cases of intense chorea where the constancy and severity of the spasmodic movements threaten the life of the patient."—*M. Bouchet*.

Respiratory Organs.—"Some of the respiratory neuroses are greatly benefited by Chloral. The paroxysms of *spasmodic asthma* may be arrested by it, and the *spasmodic attacks of difficult breathing* which accompany *emphysema* may be decidedly ameliorated by timely doses of Chloral. In the *spasmodic stage of whooping cough*, great relief to the paroxysms may be obtained by this agent. Impending attacks of *laryngismus stridulus* may be prevented, and seizures already in action can be quickly arrested by full doses (five to fifteen grains) of Chloral."—*Bartholow*.

Dr. Hughes Bennett has great confidence in Chloral to allay cough and produce sleep in phthisis. In heart disease, with

great dyspnœa and sense of suffocation, oppression of the base of the chest, tendency to faint, great sinking at the pit of the stomach, livid lips, excessively slow respiration, pulse weak and fast, and cold extremities, Chloral has acted finely.

Spinal Symptoms.—In spasmodic affections this drug has proved of infinite service, especially in *tetanus*. Gubler cured 21 cases out of 36; and Chopart has put on record 80 successful cases. No remedy equals Chloral for *tetanus*. It is also useful in *tetanus* from *Strychnine-poisoning*. In *trismus* and *tetanic convulsions* of very young infants, or in teething children, Chloral controls the spasms at once; and, if the drug can not be taken internally, give it by enemas per rectum. In *tetanus*, Chloral must be given in massive doses of from ten to fifty grains, according to circumstances. When the spasms prevent its internal administration, give it in double the quantity by the rectum.

Skin.—For *urticaria* Chloral is well nigh being a specific. In doses of from one to five grains it has made brilliant cures.

Foul Wounds.—A solution of Chloral is an excellent antiseptic dressing to foul wounds: it destroys the odor of putrefaction, arrests fermentation, and promotes healthy granulations.

Livid erythematous rash from slight causes, as a glass of wine; in some cases this rash is followed by desquamation.

Nervous itching in pruritus, affecting the whole body, coming on after undressing at night.

Pruritus Vulvæ.—Locally and internally of much service.

Scarlet Fever.—The rash produced by Chloral closely resembles that of scarlatina; and, from the power the drug has to reduce the temperature, and prevent decomposition, it must prove of great service in this disease.

Puerperal Fever, being caused by septic poisoning, must find a good remedy in Chloral.

Dose.—From one to thirty grains, according to age. A good rule is to give to a child as many grains as he is years old, up to the age of twenty years; and the best vehicle in which to administer the drug is the *Syrup of Tolu*.

IODOFORM.

Iodoformum.

Chemical preparation. Triturations. Alcoholic attenuations. Two parts by weight of Iodoform to nine by weight of Alcohol.

Antidotes.—Starch. Mineral Acids.

Synergists.—Alkalies. Mercurials, and remedies which increase waste.

Through the cerebro-spinal system, Iodoform has nine special centers of action:

- I. GLANDULAR SYSTEM. *Conges.; Hypertrophy; Hyper-Secre.*
- II. CEREBRO-SPINAL SYSTEM. *Intox.; Convul; Anæsthesia.*
- III. SKIN. *Local Anæsthetic; Ulcerations.*
- IV. CIRCULATION. *Dim. Blood-Pres.; Rapid, Weak Pulse.*
- V. TEMPERATURE. *Greatly Elevated.*
- VI. VAGI. *Paralysis of Respiratory Centers; Asphyxia.*
- VII. LIVER AND KIDNEYS. *Fatty Degeneration.*

Glandular System.—The action of Iodoform on the system has not been sufficiently investigated; but, three-quarters of the drug being composed of Iodine, its action must greatly resemble that of Iodine.

Cerebro-Spinal System.—In animals, large non-toxic doses cause symptoms of intoxication, tottering, weakness, loss of appetite; lethal doses, violent opisthotonos, convulsions, hurried breathing, and finally death. Iodoform in large amounts (30 to 40 grs. per day), produces toxic symptoms; headache, muscular twitching, malaise, vomiting, intoxication, and delirium, which last from seven to ten days.

"A woman took forty-two grammes of Iodoform in eighty days, and then had a sudden attack of giddiness, weakness in the legs, double vision, followed by a period of excitement, interrupted by broken sleep, with headache, sensations of impending death, constant convulsive movements, and irregular respiration. After improvement the resumption of the Iodoform was at once followed by a relapse."—*Oberlander.*

A constant symptom from toxic doses is deep sleep and loss of reflex activity. Death results from asphyxia due to paralysis of the respiratory centers. Post-mortem examinations reveal, as a rule, extensive fatty degeneration of the heart, lungs, liver, kidneys and muscular system.

Dr. H. B. Sands says, that, when Iodoform is used to excess (one to two ounces at a time), in large wounds, remarkable manifestations of poisoning, due to perverted cerebral action, take place. "Every degree of intoxication has been observed, from simple exaggeration of nervous excitability to the condition of acute mania. In the lighter cases patients are restless and uncomfortable, complaining of headache, loss of appetite, wakefulness, and the constant taste of Iodoform. . . . Profound mental despondency, inability to eat or sleep, spectral illusions, delirium more or less violent, and suicidal propensities are the most frequent manifestations of the morbid state. Sometimes the patient is noisy and abusive; at other times his actions are stealthy, and he will endeavor to run from his bedroom or jump out of the window in order to escape from a fancied enemy. From such a condition many persons recover; while others die, often suddenly, from exhaustion or coma. No antidote has been discovered for this condition, but to discontinue the use of the drug."

Skin. — It causes local anæsthesia, eczema, and ulcerations.

Circulation. — Toxic doses produce great increase in the frequency of the pulse, with corresponding elevation of the temperature. This great frequency of the pulse (140 to 180) is caused from weakness and diminished blood-pressure.

Temperature. — Iodoform greatly elevates the temperature, producing feeble and rapid pulse, closely resembling the effects of *septicæmia* and *pyæmia*. Hence its utility in low forms of septic diseases. Many cases of poisoning are being reported from the excessive use of Iodoform in wounds and old ulcerations. The toxic effect depends much upon the extent of the absorbing surface, a fresh wound will absorb more rapidly than one that is granulating, and old persons are especially liable to suffer from Iodoform-poisoning, while such is not the case with children. All cases of poisoning take on the form of a low septic disease.

Vagi. — Lethal doses of Iodoform produce, as constant symptoms, deep sleep and loss of reflex activity. Death occurs from asphyxia, due to paralysis of the respiratory centers, with fatty degeneration of the lungs and heart.

Liver. — Fatty degeneration has been found after death.

Kidneys. — It is rapidly excreted by the kidneys. When used to excess it produces fatty degeneration.

Antiseptic.—Iodoform is one of the most valuable antiseptics, and well has it been utilized in antiseptic surgery. Wounds treated with it remain aseptic for weeks.

Therapeutic Individuality.

General Indications.—The therapeutic properties of Iodoform have not as yet been fully learned; but its use as an antiseptic dressing in wounds, especially about the mouth, rectum, and bladder, and in old ulcerations of the skin, are most brilliant and gratifying. Mosetigmoorhof's (the originator of the *Iodoform* treatment) first application of this agent was to wounds following excision of joints of a strumous or tubercular character. The success attending its use in these cases led him to employ it in general practice as an antiseptic, and his confidence became strengthened by increased experience in its use. He claims that Iodoform is a specific for local tubercular processes. Its most important effects are of a local character; but a remotely beneficial effect is also developed. That it is a remedy possessing decided antiseptic properties is certain.

The favorable local influence of Iodoform, when applied to open wounds, has been noticed by all surgeons who have employed it. The wounds remain free from pain; the discharge is thin and scanty; the surrounding integument free from inflammatory swelling; erysipelatous inflammation very seldom occurring; and the formation of healthy granulations goes on rapidly and without interruption. Infrequent dressings are sufficient, as the Iodoform disappears very slowly; and, until the reparative process is far advanced, no change of treatment is rendered necessary. When, however, granulation is well established, and the wound has become contracted in size, other applications are often preferable. Its superiority to Carbolic acid depends mainly on the fact, that, while the direct contact of the Acid causes irritation and suppuration, Iodoform has an opposite effect, restraining inflammation, and promoting the work of repair. After operations upon the rectum, cancerous tumors of the tongue, the floor of the mouth, tonsils and jaws, disinfection of the wound, although extremely desirable, can not be safely obtained by Carbolic acid, on account of its poisonous properties; consequently the wound becomes extremely offensive, and septicæmia often sets in. In these cases, Iodoform has been used with signal success. The operation-wound, being plugged with a strip of gauze impregnated with Iodoform, remains *aseptic*; and

frequent removal of the dressing is unnecessary. Prof. Billroth has lately made twelve consecutive amputations of the tongue, and healed them in this manner, without a fatal result, most of the operations extensive and severe, involving a removal of the floor of the mouth.

Iodoform has long been known as a valuable remedy when applied to unhealthy and fetid ulcers; and its excellence in this respect has been confirmed by recent observation. I have repeatedly employed it with the happiest effect in this class of cases, and have been surprised to notice how quickly the ulcers become inoffensive and covered with florid, healthy granulations.

"In treating open wounds with Iodoform, I have followed the usual practice of covering the surface with a thin layer of the powder, dusted from a pepper-box; afterward applying a layer of cheese-cloth, a coat of absorbent cotton, a piece of gutta-percha tissue, and a bandage. In operation-wounds intended to be closed, with the object of obtaining union by adhesion, wash the wound with a solution of Carbolic acid, and, after uniting the edges with sutures, with or without the insertion of a drainage-tube, cover the surface with half a dozen layers of cheese-cloth, lightly dusted with powdered Iodoform, over which apply a mass of Salicylated or absorbent cotton, a piece of gutta-percha tissue and a gauze bandage. The dressings are renewed on the second or third day, and afterward at longer intervals."—*H. B. Sands, M. D.*

In the hospitals and clinics of Vienna, all wounds, no matter where situated, are treated with Iodoform with splendid results. The Iodoform powder is rubbed into gauze as we rub Plaster of Paris into our bandages. This gauze is applied directly to a wound, after freely dusting the same with the powder; over the gauze comes a large pad of absorbent cotton, and over this a large piece of oiled silk, gutta-percha paper, or jaconet; and then the bandage. In cases where there are fistulæ, crayons made of Iodoform and gelatine (one part to two), or of Iodoform and tragacanth, are inserted.

The advantages claimed for this method of treatment are: that it is entirely aseptic; there is no formation of pus, as a rule, but only of a serous secretion, such as found under the Lister dressing. The bandages can be left on, eight, fourteen, or even twenty days, without harm; it is, thinks Podrazky, the ideal antiseptic dressing for armies.

Ulcers, Etc. — *Old Ulcers.* — Its effects are more certain when fungous granulations are previously removed. This is absolutely

necessary, however, only in caries fungosa. It hastens granulation, prevents sepsis, has a local sedative action of great value, and is, when sprinkled upon the wound, a reliable antiseptic.

Syphilitic Ulcers.—The testimony is especially strong as to the value of Iodoform in the soft chancre, and also in all syphilitic ulcers. My experience has been, that, in *soft chancre*, we have no drug that can take its place, when applied locally, either in the form of a powder or Ether solution. In unhealthy, fetid, red, indolent *leg ulcers*, the Ether solution is often the best form that can be used.

Buboes.—The injections of Glycerine and Iodoform into buboes from hard chancre has proved successful.

Anal Fissure.—Iodoform, in the form of suppositories, gives immediate relief, and will cure many cases.

Lymphatics.—*Gout.*—The injections of the Glycerole of Iodoform, at the same time taking it internally (1 to 3 grs.), is not only safe, but has cured many cases.

Exophthalmic Goiter.—Iodine (2 to 3 grs., *bis die*) has given very satisfactory results to Dr. Carpenter.

Lymphatic Glandular Tumors.—Inject the Glycerole of Iodoform directly into the tumor, and at the same time take the drug internally.

Gynæcological Practice.—Dr. Foster has had prompt and satisfactory results with the local use of Iodoform as a sorbefacient in cases in which chronic extra-uterine exudation and its sequelæ were the chief factors. His three great remedies for extra-uterine pelvic inflammation are: (1st) hot water; (2d) Iodoform; (3d) Galvanism. He applies the Iodoform to the upper part of the vagina, and tampons the whole vaginal canal with wicking. The taste of the drug thus applied is sometimes complained of immediately, indicating its prompt absorption.

"In pruritus vulvæ, hyperæsthesia of vulvo-vaginal orifice, and inflammation of Bartholin's gland, it was more serviceable than any other remedy."—*Dr. Foster.*

Cervical Hyperplasia.—Iodoform often cures.

Dysmenorrhœa.—Rectal suppositories of Iodoform often give relief in sensitive temperaments.

Membranous Dysmenorrhœa.—Iodoform has been employed with exceedingly gratifying results; many cases having been cured by local applications, used twice a week, mixed with Peruvian balsam to destroy the odor; a drachm of Iodoform to half a drachm of the Balsam and one ounce of Glycerine. In erosions

and ulcerations of the os uteri, Iodoform locally packed about the os, does excellent service.

Uterine Cancer. — No remedy will do as much for this terrible disease as the local application of Iodoform. The pain is relieved, the fetor destroyed, and cicatrization is promoted. When the discharge is great, apply in powder; when very painful, use Cocoa-butter suppositories containing 5 to 10 grains, or Iodoform one part, Ether two parts, and Collodion ten parts.

Skin. — In skin diseases, attended with excessive secretions, the effects of the external application of Iodoform are so favorable and decided that its use must become general. Moist, suppurating, eczematous eruptions, with much itching.

For *impetigo larvalis*, with mattery, yellow-scabbed patches on the faces of children or adults. Powder or ointment.

Herpes, Circinatus and Zoster. — Iodoform 13, to 1 oz. of the Oil of Eucalyptus, painted on the diseased surface, often cures in a few days.

Ulcers of the Leg, Cracked Nipples, and All Kinds of Indolent Ulcers with Raised Edges. — Iodoform in powder, ointment, or mixed with the Balsam of Peru or Ether, and applied.

Burns. — Iodoform in Cosmoline or Glycerine is excellent; or Iodoform one part, Ether two parts, and Collodion ten parts.

Chafing of Infants. — Apply first decimal trituration.

Sexual Organs. — For Gonorrhœa use suppositories of Iodoform 13 with Cocoa-butter 13, applied with a hollow silver tube one-fifth of an inch in diameter. This melts and takes effect at once. These suppositories are a complete substitute for injections, and more efficacious. *Fissure of the female urethra* yields promptly to them.

Eyes. — For *granulated lids*, apply Iodoform, first decimal, directly to the everted lids with a soft brush. This often cures cases of months' standing in a few weeks.

Throat. — *Granular pharyngitis*, in its most obstinate form, will often yield to the local and internal use of Iodoform.

Nose. — *Chronic Nasal Catarrh.* — Wash out the nares with a solution of common salt; and then apply Iodoform by insufflation, or as an ointment on absorbent cotton; introduce at night, and leave there till morning. Apply every night. Many obstinate cases have been cured in ten days.

To Deodorize. — Owing to the bad odor of this drug, many object to its use. This can be partially overcome by mixing it with Ether, Balsam of Peru, and the Tonka bean.

NOVEMBER, 1882. •

DESCRIPTIVE CATALOGUE

OF

GROSS & DELBRIDGE'S

HOMŒOPATHIC

MEDICAL WORKS.

**For Sale at all Homœopathic Pharmacies, or
will be sent prepaid on receipt of price.**

**CHICAGO:
GROSS & DELBRIDGE.
1882.**

GROSS & DELBRIDGE'S PUBLICATIONS.

The Science and Art of Obstetrics, by SHELDON LEAVITT, M. D., Prof. of Obstetrics and Clinical Midwifery in Hahnemann Medical College and Hospital, Chicago; author of "The Therapeutics of Obstetrics," etc. About 658 pages, royal octavo. Price, cloth, \$6.00; sheep, \$7.00.

This work is intended to fill the want so long felt by Homœopathic teachers of Obstetrics, students, and practitioners, of a text book which should deal with the subject as both a science and art, and embody the researches and improvements which have been made in this branch of medicine during the past few years. The work has been carefully prepared, and sets in the foreground no theories or empty chimeras in respect to etiology, pathology, diagnosis or treatment, but accepted ideas, and rational deductions from extensive observations and experience.

The book has between two and three hundred finely-executed illustrations, many of them original, and the text is clear and compact; the scope of the work is comprehensive and the general treatment of the subject concise, yet perspicuous. No pains have been spared by either author or publishers to make it a credit to our school of medicine, and to afford instruction of the amplest and most approved kind.

"The text on the Anatomy of the Pelvis and the physiology and development of the ovum shows a familiarity with the best authorities extant. The chapter on the Diagnosis of Pregnancy and the drawings pointing out the areas over which the foetal heart-beat can be heard are particularly accurate and true. If these first four chapters are an earnest of the value of the forthcoming book, then we shall be proud of our school for giving us such a man. The Publishers—Gross & Delbridge, will do their duty and present the book handsomely."—In Oct. Review, St. Louis

"We are in receipt of advance sheets, covering nearly one-half the text of this forthcoming book, which promises to be a text book *par excellence*, as the matter appears to be concisely prepared and quite free from the theory and quotation, which so often form the bulk of similar works. In other words, we may say that it is the *vade mecum* of the department which it represents, and compares favorably with a similar work prepared by Prof. T. G. Thomas, for the use of his students.

A marked feature of the book is its divisions and sub-divisions, by means of which the student will the more readily grasp and complete the study of each particular subject before entering upon another. This we consider an important point in a book of this character.

The illustrations embrace some two hundred and fifty figures of excellent design and execution; many of them are original, and some are drawn from life. These drawings are of inestimable value to the student of midwifery.

The pelvic anatomy is so clearly and concisely stated, and so well illustrated, that the student is saved much labor in his attempt to memorize the points which are so absolutely necessary to a ground-work of this important subject.

The aim of the author has evidently been to present a clear, dignified and creditable treatise on the subject, and as far as we have examined, all important points seem to have been touched upon and the practical ones sufficiently elaborated.

The physical part of the work, so far as we can judge, will be faultless, as might be expected, the name of the publishers being sufficient guarantee in this particular.

This work must certainly become the text-book of our colleges, and it will also be found an excellent hand-book for the busy practitioner, because every important point of obstetric practice is so clearly stated, and from the arrangement, so readily found.

We congratulate the author on the success of his effort, the publishers on their opportunity to issue so worthy a book, and "Our School" on possessing the ability within itself which has made such an undertaking possible."—*New York Medical Times*.

For sale by all Pharmacies, or sent free on receipt of price.

GROSS & DELBRIDGE, Publishers,
48 Madison St., CHICAGO.

GROSS & DELBRIDGE'S PUBLICATIONS.

A Physiological Materia Medica, containing all that is known of the Physiological Action of our Remedies, their Characteristic Indications, and their Pharmacology. By W. H. BURT, M. D. Chicago: Gross & Delbridge. 1881. 992 pages. Cloth, \$7; Sheep, \$8. Third edition. For sale by Homœopathic Pharmacies, or sent free by the Publishers, on receipt of price.

We believe that no book on Materia Medica in our literature so completely meets the requirements of the Physician and Student as this; and, as proof of the correctness of this opinion, we have to announce the sale of the entire first edition in ninety days. Such a reception has never been awarded before to any book in Homœopathic literature. The demand for the work indicates that its appearance was opportune, and that its plan and execution are approved by the Profession. We have received a large number of favorable notices both from Physicians and the Press, from which we make the following selections:

Dr. Burt has brought together in a compact and well-arranged form an immense amount of information. The profession will fully appreciate the labor and skill with which the author has presented the physiological and pathological action of each drug on the organism.—*New York Medical Times*.

We are sure that Dr. Burt's new work will have deservedly a rapid sale. Gross & Delbridge are a new publishing house in the medical line; but certainly they must be old hands in the business, for paper and printing leave nothing to be desired. May they never falter in such laudable work, and the eyes of the readers will bless them forever.—*Dr. Lilienthal in North American Journal of Homœopathy*.

An enthusiastic yearning for the *whys* and *wherefores* of our wondrous Therapeutic art has brought Dr. Burt to the front again among the best book-makers of our time.—*St. Louis Clinical Review*.

Dr. Burt has enriched our literature with many valuable contributions, and the work before us gives proof of the value of his well directed labors.—*Detroit Medical Observer*.

We can recommend the book as full of interesting and profitable reading.—*Hahnemannian Monthly*.

Dr. Burt has the power of sifting the tares from the wheat.—*Chicago Medical Times*.

We cordially recommend Dr. Burt's book.—*New England Medical Gazette*.

Have just received Burt's Materia Medica. It is a work long needed, and the printing and binding are a credit to your house.—*R. W. Nelson, M. D.*

It is a keystone of medical study, and the printing and binding are the very best.—*G. H. Morrison, M. D.*

The work is a credit to Chicago.—*Medical Investigator*.

GROSS & DELBRIDGE, Publishers,

48 Madison St., CHICAGO.

GROSS & DELBRIDGE'S PUBLICATIONS.

A Complete Minor Surgery. The Physician's Vade-mecum. Including a Treatise on Venereal Diseases. Just published. By E. C. FRANKLIN, M. D., Professor of Surgery in the University of Michigan. Author of "Science and Art of Surgery," etc. Illustrated with 260 wood cuts. 423 pps. Octavo. Price, cloth, \$4.00. Sheep, \$4.50.

This work is just such a one as might be expected from the pen of one experienced in teaching as our veteran author, and is properly designated as "complete." The text is lucidly and concisely written, the therapeutics clear and practical, and the whole is well adapted to the uses of the general practitioner. This book fills a gap which has never before been met, and we prognosticate a large demand for it.—*New York Medical Times*.

Prof. Franklin has given us a work containing some new features, and embracing a larger field than has heretofore been covered by manuals of minor surgery. The work is well illustrated, and is every way a most convenient and satisfactory treatise.—*Chicago Medical Times (Eclectic)*.

This is a work containing all the general practitioner of medicine should endeavor to assimilate on the subject of surgery. For ready references and emergencies this work is not surpassed. We heartily recommend the work to the profession. The publishers have done good work in issuing the book so creditably, and the profession will appreciate the large distinct type used, and the prominence given words so as to enable the reader to secure readily that which he is looking for.—*Cincinnati Medical Advance*.

Dr. Charles Adams, Professor of Surgery in the Chicago Homœopathic College says of this new work: I have been very much pleased in the perusal of Franklin's Minor Surgery, issued by your house. The book, I have no doubt, will prove useful to the busy practitioner, and add to the reputation of the learned author."

Dr. R. N. Tooker, Professor of Diseases of Children, in the Chicago Homœopathic College, in reviewing the book says: "It could not be expected that Dr. Franklin would do otherwise than write a book that would be creditable both to himself and to the school of medicine to which he belongs. He has done more than this, for this work is a veritable and valuable 'Vade mecum' to the practitioner, and there are very few members of our profession who would not find it a profitable companion. His instruction on Bandaging and the application and construction of apparatus, are full and unusually explicit. His chapters on Venereal Diseases are alone worth the price of the book, and are fully up to the times."

With this book in possession no practitioner will need any other text book on Minor Surgery. It is full and complete, and any bandage, dressing and instrument known or used is illustrated.—*Dr. Valentine in Clinical Review (St. Louis)*.

For Sale at all the Pharmacies, or sent free on receipt of price.

GROSS & DELBRIDGE, Publishers,
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An Index of Comparative Therapeutics, with a pronouncing Dose-List in the genitive case,—a Homœopathic Dose-List,—Tables of Differential Diagnosis, Weights and Measures,—Memoranda concerning Clinical Thermometry, Incompatibility of Medicines, Ethics, Obstetrics, Poisons, Anæsthetics, Urinary Examinations, Homœopathic Pharmacology and Nomenclature, etc., etc. By SAMUEL O. L. POTTER, A. M., M. D., late President of the Milwaukee Academy of Medicine, author of "The Logical Basis of the High Potency Question," "Munchausen Microscopy," etc. Second edition.

The leading feature of this book is its comparative tabular arrangement of the therapeutics of the two great medical schools. Under each disease are placed in parallel columns the remedies recommended by the most eminent and liberal teachers in both branches of the profession. By a simple arrangement of the type used, there are shown at a glance the remedies used by both schools, as well as the remedies peculiar to each, for any given morbid condition. Over forty prominent teachers are referred to, besides occasional references to more than thirty others. In the first class are Bartholow, Ringer, Phillips, Piffard, Trousseau, and Waring of the old school; Hempel, Hughes, Hale, Ruddock and Jousset among modern homœopathic authorities.

"Dr. Potter's compilation must be the result of a large amount of painstaking and accurate work, and will be appreciated. As an index it is very elaborate and serviceable."—*New England Medical Gazette*.

"The work is really a *multum in parvo*; as an index it is exhaustive, and very often it supplies in few words the very information that is wanted."—*British Journal of Homœopathy*.

"I am much pleased with your Index. It is strong and will find sale among old as well as new school men."—*Dr. J. P. Dake, Nashville, Tenn.*

"It will furnish the busy practitioner with a summary of immense practical value."—*Dr. H. M. Paine, Albany, N. Y.*

"It will be held in high appreciation by a large class of practitioners."—*Dr. C. P. Hart, Wyoming, O.*

"As a work of merit it will be appreciated by the profession generally."—*Dr. J. S. Fisher, Ada, O.*

"I like the idea very much; besides giving many valuable hints to the practical physician, it is very interesting from a theoretical point of view."—*Dr. H. C. Clapp, Boston.*

For sale at the Pharmacies, or sent free on receipt of price. Price, in cloth, \$2.00; in flexible morocco, tuck, \$2.50.

GROSS & DELBRIDGE, Publishers,

48 Madison St., CHICAGO.

Lectures on Clinical Medicine. By M. LE DR. P. JOUSSET, Physician to the Hospital Saint-Jacques, of Paris; Professor of Pathology and Clinical Medicine; Editor of *L'Art Medical*. Translated with copious Notes and Additions by R. LUDLAM, M. D., Professor of the Medical and Surgical Diseases of Women and of Clinical Midwifery in the Hahnemann Medical College and Hospital of Chicago. Large 8vo. of over 500 pages, cloth, \$4.50; half morocco, \$5.00.

This work is one of very great interest to the profession and to students, embodying, as it does, about forty years of experience on the part of the author, and that of nearly thirty years by the translator. It sets forth the best and freshest pathological views; the most practical application of the homœopathic method of treating disease; and a clear and forcible bed-side analysis of the cases that are presented. The author discusses, from a very practical standpoint, the questions of Alternation, Attenuation, Dose and Repetition, and of Individualization and Aggravation. The subjects embraced in these lectures include Asthma, Emphysema, Rheumatic Endocarditis, Articular Rheumatism, Bronchitis, Pneumonia, Croup, Diphtheria, Typhoid Fever, Nephritis, Albuminuria, Hæmoptysis, Hæmorrhoids, Chronic Gastritis, Scrofulous Ophthalmia, Hydrarthrosis, Pelvi-Peritonitis, Vaginismus, Menorrhagia, etc.

The practitioner may here find cases analogous to puzzlers which occur in his own practice, and cannot fail to be benefited by their perusal.

"The work presents the latest pathological data, the most practical method of treating disease homœopathically, and a critical analysis of each case related. It is eminently practical and demands the use of well proved remedies."—*From the Hahnemannian Monthly, Philadelphia.*

It contains the very best and most reliable clinical experience in the practice of homœopathy of any work extant in the profession.—*A. E. Small, M. D., in the Chicago Tribune.*

I have carefully read the work and hardly know whether I admire more, the plain thorough pathology and diagnosis, or the practical common sense, honest treatment set forth. * * The Notes of Dr. Ludlam are in keeping with our best American authorship.—*J. P. Dake, M. D., Nashville, Tenn.*

The book is of great value to practitioners and students of medicine.—*J. W. Dowling, M. D., Dean of the New York Homœopathic Medical College.*

I have read the work with a great deal of interest and find it to be eminently practical, and of great value to the profession.—*T. G. Comstock, M. D., St. Louis, Mo.*

I have spent considerable time in examining Dr. Ludlam's translation of Jousset's Clinical Medicine and cannot speak too highly of it. It fills a place in our literature which has hitherto always been vacant.—*H. C. Clapp, M. D., Editor of the New England Medical Gazette, Boston, Mass.*

GROSS & DELBRIDGE, Publishers,
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GROSS & DELBRIDGE'S PUBLICATIONS.

Antiseptic Medication, or Déclat's Method.—By NICHOLAS FRANCIS COOKE, M. D., LL. D. Emeritus Professor of Theory and Practice in the Hahnemann Medical College and Hospital of Chicago. 128 pp. 12 mo. cloth, 1882. Price \$1.00. Gross & Delbridge, Chicago, Publishers.

This is the first, and must continue to be for some time, the only treatise on this vitally important subject, in the English language. It is plain and practical. Though written only for the physician, it cannot fail to attract attention from the intelligent layman every where. Especially will it be welcome to the sufferers from CONSUMPTION, CANCER, PYÆMIA, NECROSIS and all forms of blood-poisoning, and MALARIA.

For the matter of this volume Dr. Cooke confesses his large indebtedness to Dr. Déclat; but the remarkable cures of tuberculosis, cancer, septicæmia, eczema, and malarial fevers recorded in the latter half of the book are strictly original. The only treatise on the subject in the language, it must inevitably fall under the eye of every intelligent physician, and the present notice may therefore be limited to a description of its contents. These consist of an introduction, which not more lucidly sets forth the teachings of Déclat than it effectually demolishes the claims of his rivals, Lemaire and Lister; some remarks on antiseptics in general, giving preference to phenic acid and the protochloride of iron prepared according to Boudreaux's method; and an examination of phenic acid, both in its chemical and therapeutical aspects. Besides all this, we have directions for the use of the hypodermic syringe; and last, and most interesting of all to the laity, who care little how they are cured, full accounts of a number of cases that have been successfully treated by the method of Déclat. The average medical man, who is more likely to close his ears to the voice of the sage than to the song of the siren, will skim lightly over the cases of cancer, and say in his easy, superior way, that not one of them was a case of true cancer. He will certainly say this to his own patients, for whose enlightenment it may be well to mention that Dr. Cooke is an Emeritus Professor of Diagnosis. Dr. Cooke has been wonderfully fortunate in his use of the new remedy, but he has the candor to admit that he has not always been victorious.—*The Chicago Tribune*, Sept. 11th, 1882.

"Antiseptic Medication" is a small volume by Dr. N. F. Cooke, of the Hahnemann Medical college of this city, avowedly a treatise on the theory and method of Dr. Déclat, a recent visitor from the old world, which have attracted a great deal of attention of late. It is pretty generally safe to suspect something of exaggeration in almost anything which takes so sudden a hold upon popular enthusiasm, but it must be said, from hastily running through Dr. Cooke's advance sheets, that he makes out a pretty strong case. * * *

The subject-matter treated of in Dr. Cooke's book belongs especially to the medical profession, and the volume can scarcely fail to be one of great interest to all of that profession not "hide-bound," as it is called, in foregone conclusions.

It is clearly the work of an earnest, thoughtful, and scientific man, even if nothing else was known of the author.—*Chicago Times*, Sept. 11th, 1882.

Sent free on receipt of price.

GROSS & DELBRIDGE, Publishers,

48 Madison St., CHICAGO.

How to Feed the Sick; or, Diet in Disease. By CHARLES GATCHELL, M. D. Second edition, revised and enlarged. 12 mo. 160 pp., 1882. Price \$1.00.

This work is a very practical and timely volume not only for those who are sick, but also for those who are not really well, and to whom the problem, "What shall I eat," is of vital importance. As introductory, the various forms of animal, vegetable and inorganic foods are considered and their relative merits carefully pointed out. The Chapters that follow are devoted to such practical subjects as How to feed your patients, Diet for Dyspepsia with aids to Digestion, Diet for Constipation, Rectal Alimentation, etc.; Diet in Consumption, Diet in Diabetis, Bright's Disease, Gravel; How to nurse the Baby, How to choose a Wet Nurse, How to wean the Baby, How to feed the Baby, Diet for Cholera Infantum, Diet for Travelers, Seasickness, the Corpulent, Scrofula, Rickets, Scurvy, Chlorosis, Collapse, Rheumatism, Asthma, Heart Disease, Alcoholism, Diarrhœa, Dysentery, Cholera, Diphtheria, Gastritis, Biliousness, etc. Diet for convalescents is a valuable chapter. Then follows a long and carefully prepared list of recipes for the preparation of Beverages, Meats, Broths, Soups, Breads, Gruels, etc., etc.

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"I consider your work on 'How to Feed the Sick' to be the most practical, and therefore the most useful, work on the subject with which I am acquainted. No physician should be without it; every mother should have it. It is in use in many of the households in which I practice."

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"This work is plain, practical and valuable. It is really a clinical guide on diet, and one the profession will find reliable and correct."—*United States Medical Investigator*.

"Evidently much investigation, thought and carefulness have entered into the production of this work, and we believe it to be worthy a place in every household."—*The Magnet*.

* * * "We have carefully examined the work and shall cheerfully recommend it for family use. The directions as to what food and drinks, and modes of preparation are very judicious." * * * * *

Janesville, Wis. Resp. Yours, Dr. G. W. CHITTENDEN & SON.

MILWAUKEE, Wis., Sept. 8, 1880.

"Professor Gatchell's 'How to Feed the Sick' is the best book on the subject for the people. It contains in 160 pages an astonishing amount of condensed information on a subject of great importance, and one but little understood. Its style is admirable, pithy and to the point. The book has no padding about it, and deserves an immense sale."

SAM'L POTTER, M. D.

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BURT'S

Compendium to "Physiological Materia Medica,"

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Abbreviations, Weights and Measures, The Pulse, Temperature, The Tongue, Dentition, Urinary Analysis, Deodorizing and Disinfecting Agents, Duration of Pregnancy, Mean Time of Digestion of the Different Articles of Diet, Poisons and their Antidotes, Asphyxia from Various Causes, Impurities in Water, Post-mortem Examinations, Medico-legal Examinations, Woman's and Cow's Milk, Dietary Table for the Sick, Mineral Waters.

THEN FOLLOWS :

The Name and Signification of every Disease, Medical, Surgical, Obstetrical and Gynæological, together with a complete enumeration of all the remedies used in each disease, arranged in three classes, according to their value, which is followed by all the adjuvants used in each disease—something sadly neglected in our school. Finally giving the True Characteristic Therapeutics of the principal drugs in our Materia Medica, so arranged as to be readily memorized by the student of medicine.

GROSS & DELBRIDGE, Publishers,

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IN PRESS.

Practitioner's Guide to Urinalysis. By CLIFFORD MITCHELL, A. D., M. D., author of "Manual of Urinary Analysis," "Clinical Significance of Urine," etc. 260 pages, illustrated. Price, \$1.50.

The object of this work is to *teach*, whether any one be greatly experienced or not in the use of Chemicals and the Microscope. He may by its means *learn* how to analyze a specimen of urine, examine any sediment with the microscope, and having done so ascertain the *clinical significance* of such constituents as have been found.

The Introduction gives more details in regard to the use of Chemicals and the Microscope than any book on the Urine yet published. How to use test-tubes, pipettes, beakers—How to heat, boil, and filter urine—How to collect the urine of twenty-four hours—What chemicals are necessary for an examination of urine and how to keep them—What chemicals used stain the skin or clothing and how, if possible, to remove the stains—What chemicals used are poisonous and what their antidotes—What chemical apparatus is necessary, with descriptions—How to collect sediments for chemical analysis if desired—names of the component parts of the microscope—How to examine sediments microscopically and to use micro-chemical re-agents—How to take care of and clean the microscope—Explanation of metric system equivalents, etc., etc.

PART I. tells in concise language how to examine a specimen of urine chemically and microscopically in the *shortest and simplest* manner; *any physician can use the tests given intelligently and accurately.* An original and most valuable feature of Part I. is the plan of inserting here and there a "Clinical Summary" explaining in concise terms the *clinical significance* of all constituents thus far demonstrated. *In these "Summaries" the practitioner will find hints to Diagnosis which, if in other works at all, are scattered through scores of pages.* The student studying for examination will find them *intoto an invaluable synopsis.* How to detect and estimate albumin and tell if it be of kidney origin—How sugar, bile, the contents of deposits, as blood, pus, uric acid, casts, etc. may be identified with numerous cuts showing the microscopical appearance of the contents of sediments. The detection and estimation of normal constituents, as urea, sodium chloride, the phosphates, etc. are described and hints given with reference to calculi.

PART II. is for the physician who is "studying up a case" and desires an epitome of the latest scientific knowledge on the subject, physiological, pathological, semiological, microscopical and chemical. Comprehensive lists are given of diseases and conditions in which albumin, sugar, blood, pus, casts, epithelia and other important constituents appear—*when the prognosis is favorable, when doubtful.* Complete description of the urine in various forms of Bright's disease, in diabetes, in the oxalic acid and uric acid, diathesis, etc., etc.—part played by the normal constituents, urea, sodium chloride, phosphates, etc. in disease. Normal urine, its quantity, color, odor, reaction, specific gravity, amount of solids, etc. is described and the Author's statistics on the daily amount collected for *sixty-eight* consecutive days given. Abnormal urine is then similarly described and the effect of poisons on it noted.

The more advanced student will find in part II. a chronicle of latest discoveries in urinary pathology and the latest and most improved methods of Chemical and Microscopical research.

GROSS & DELBRIDGE, Publishers,
48 Madison St., CHICAGO.

IN PRESS.

Lectures on Fevers. By J. R. KIPPAX, M. D., LL. B., Prof. of Principles and Practice of Medicine in the Chicago Homœopathic Medical College; Clinical Lecturer and Visiting Physician to the Cook County Hospital; Author of "Handbook of Skin Diseases," etc. Octavo 500 pp.

The work will comprise thirty lectures, embracing every form of Fever; their Definition, History, Etiology, Pathology and Homœopathic Treatment, making a most important and valuable addition to our literature. In large type and on the best paper.

LECTURE I.—Fevers. Introduction. Classification of Fevers. Miasmatic, or Malarial, Miasmatic-Contagious and Contagious. The Thermometry of Fevers.

LECTURE II.—Fevers. Simple Continued Fever.—*Malarial Fevers.* Laws of Malarial, Miasmatic. Geographical Distribution, and Incubation.

LECTURE III.—Intermittent Fever.—Intermittent Fever. Definition. Synonym. Historical Notice. Etiology. Clinical History. Types of Intermittent. Morbid Anatomy and Differential Diagnosis.

LECTURE IV.—Intermittent Fever (continued). Complications and Sequelæ. Prognosis. Chart of Characteristics. Prophylaxis. Treatment.

LECTURE V.—Remittent Fever. Definition. Synonym. Historical Notice. Etiology. Clinical History. Morbid Anatomy.

LECTURE VI.—Remittent Fever (continued). Differential Diagnosis. Complications and Sequelæ. Prognosis. Chart of Characteristics. Treatment.

LECTURE VII.—Pernicious Malarial Fever.—Definition. Synonym. Historical Notice. Etiology, and Clinical History. Types of Pernicious Malarial Fever. Duration. Morbid Anatomy. Differential Diagnosis. Complications and Sequelæ. Prognosis. Chart of Characteristics. Treatment. Chronic Malarial Infection.

LECTURE VIII.—Dengue. Definition. Synonym. Historical Survey. Etiology. Clinical History. Duration. Morbid Anatomy. Differential Diagnosis. Prognosis. Chart of Characteristics. Treatment.

LECTURE IX.—Hay Fever. Definition. Synonym. History and Statistics. Etiology. Clinical History. Differential Diagnosis. Prognosis. Prophylaxis. Treatment.

LECTURE X.—Typho-Malarial Fever. Definition. Synonym. Historical Notice. Etiology. Types of Typho-Malarial Fever. Clinical History. Duration.

LECTURE XI.—Typho-Malarial Fever (continued). Morbid Anatomy. Complications and Sequelæ. Differential Diagnosis. Prognosis. Chart of Characteristics. Treatment.

LECTURE XII.—Miasmatic-Contagious Fevers. *Typhoid Fever.* Definition. Synonym. History and Statistics. Etiology.

LECTURE XIII.—Typhoid Fever (continued). Clinical History. Duration. Morbid Anatomy.

LECTURE XIV.—Typhoid Fever (continued). Complications and Sequelæ. Differential Diagnosis. Prognosis. Chart of Characteristics. Treatment.

LECTURE XV.—Yellow Fever. Definition. Synonym. History and Statistics. Etiology. Clinical History. Differential Diagnosis. Morbid Anatomy. Complications and Sequelæ. Prognosis. Chart of Characteristics. Treatment.

The above selections from the table of contents will give the reader some idea of the value of this new book. The work is now in press and will be ready about January 1st, 1883

GROSS & DELBRIDGE, Publishers,

48 Madison St., CHICAGO.

IN PRESS.

A Compendium of Venereal Diseases, For Practitioners and Students; being a condensed description of those affections and their Homœopathic Treatment. By E. C. FRANKLIN, M. D., Professor of Surgery in the Homœopathic Department of the University of Michigan; Surgeon to the University Homœopathic Hospital; Author of "Science and Art of Surgery," "A Complete Minor Surgery," etc., etc. About 112 pages. Octavo. 1883. Price \$1.00.

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